

FIG. 1A  
PRIOR ART

122	G	G	S+	S-	G	G	111
122	S+	S-	G	G	S+	S-	112
122	G	G	S+	S-	G	G	113
122	S+	S-	G	G	S+	S-	114
122	G	G	S+	S-	G	G	115
	S+	S-	G	G	S+	S-	116

FIG. 1B

Prior Art

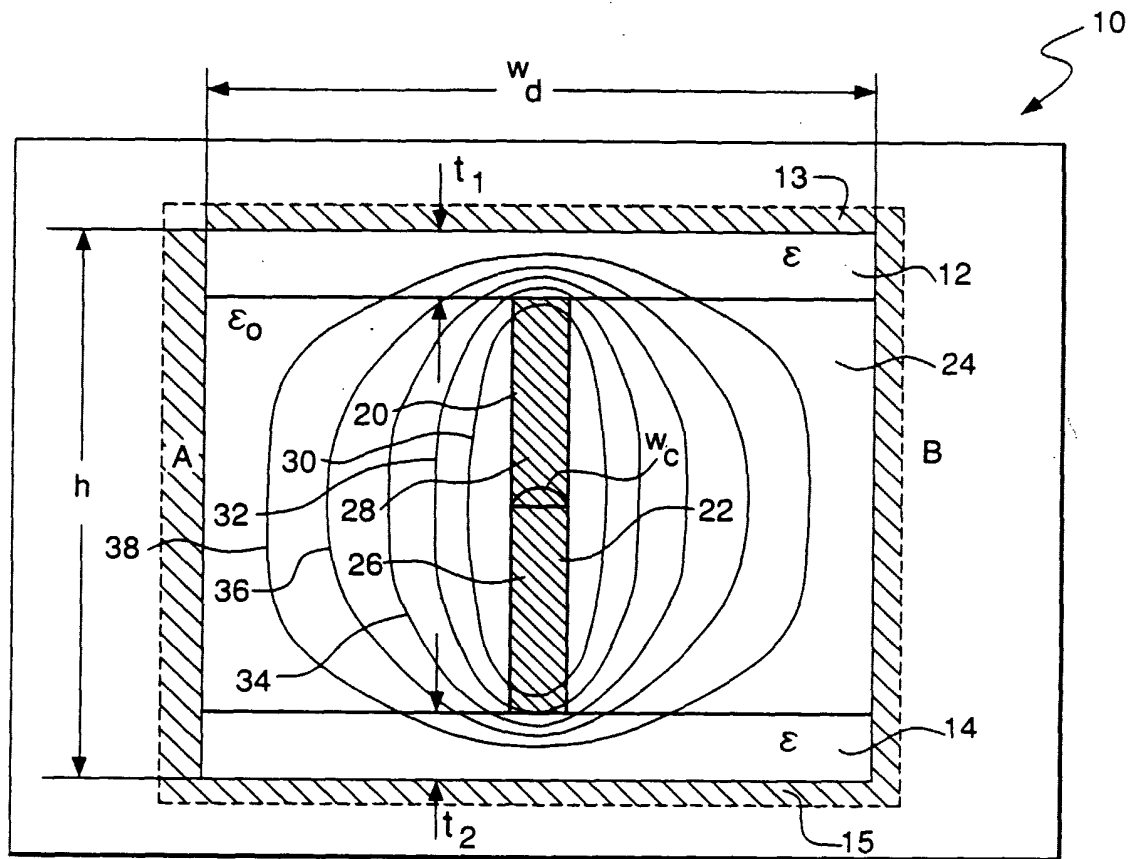


FIG. 2A

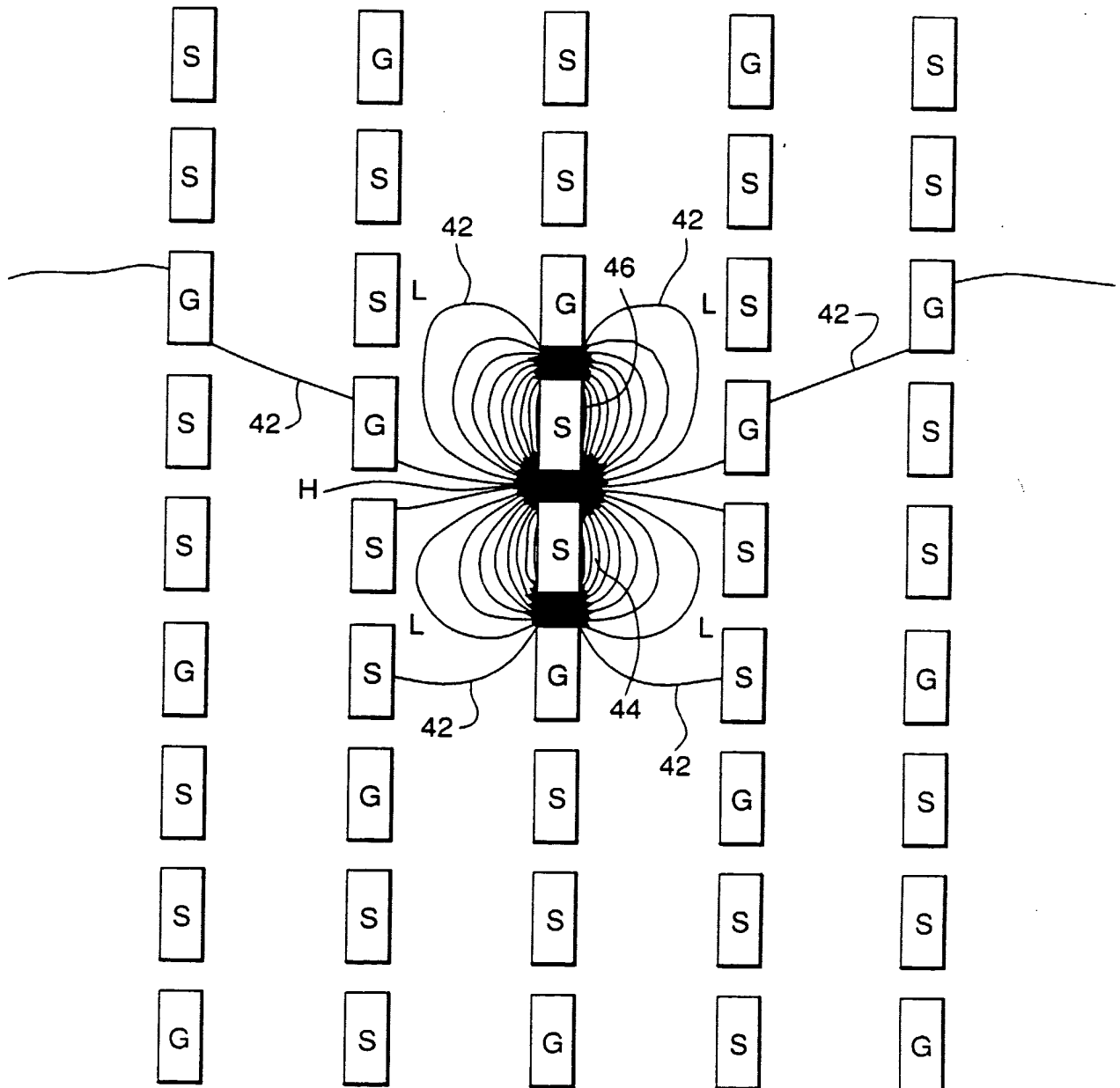


FIG. 2B

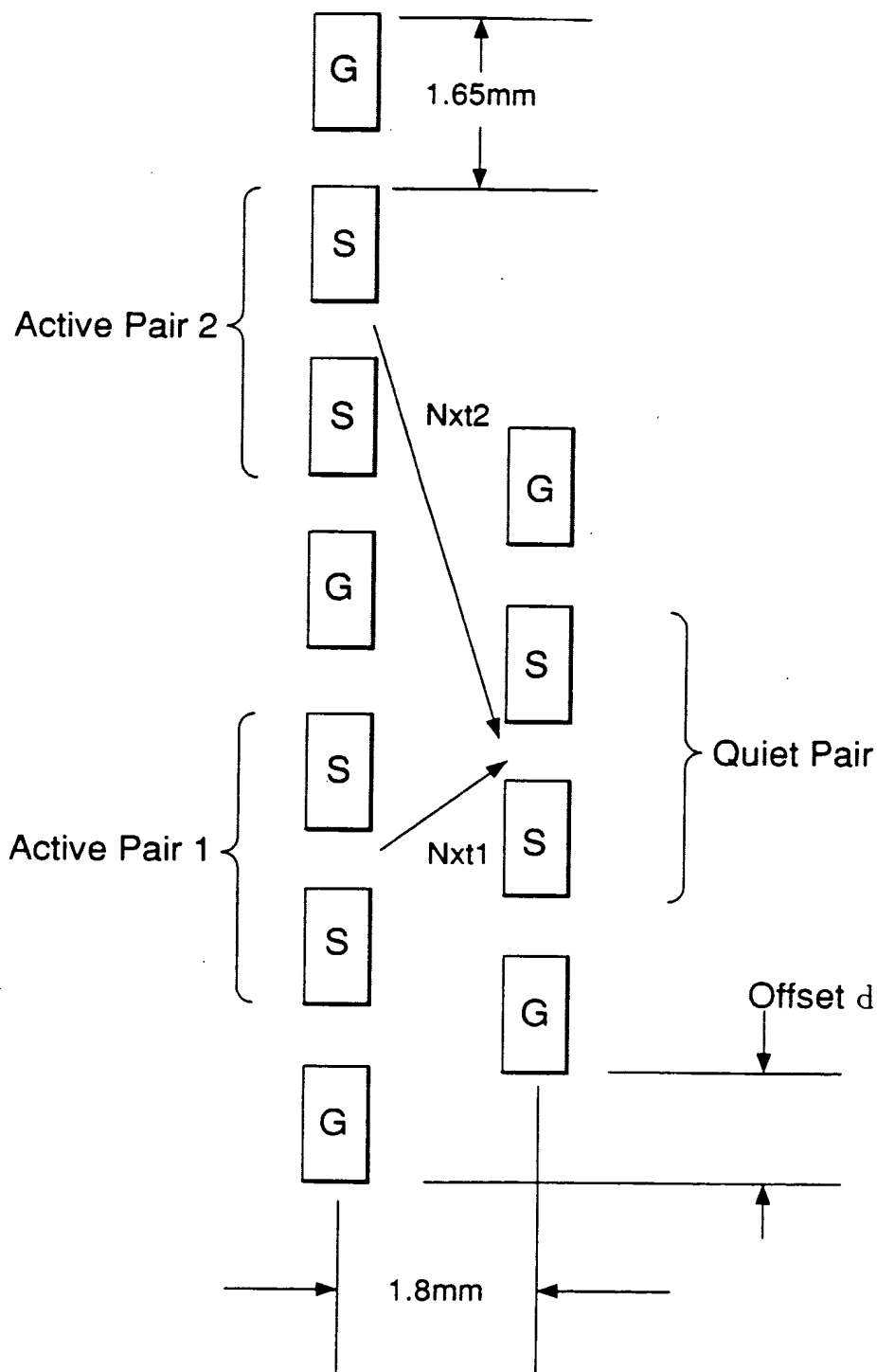


FIG. 3A

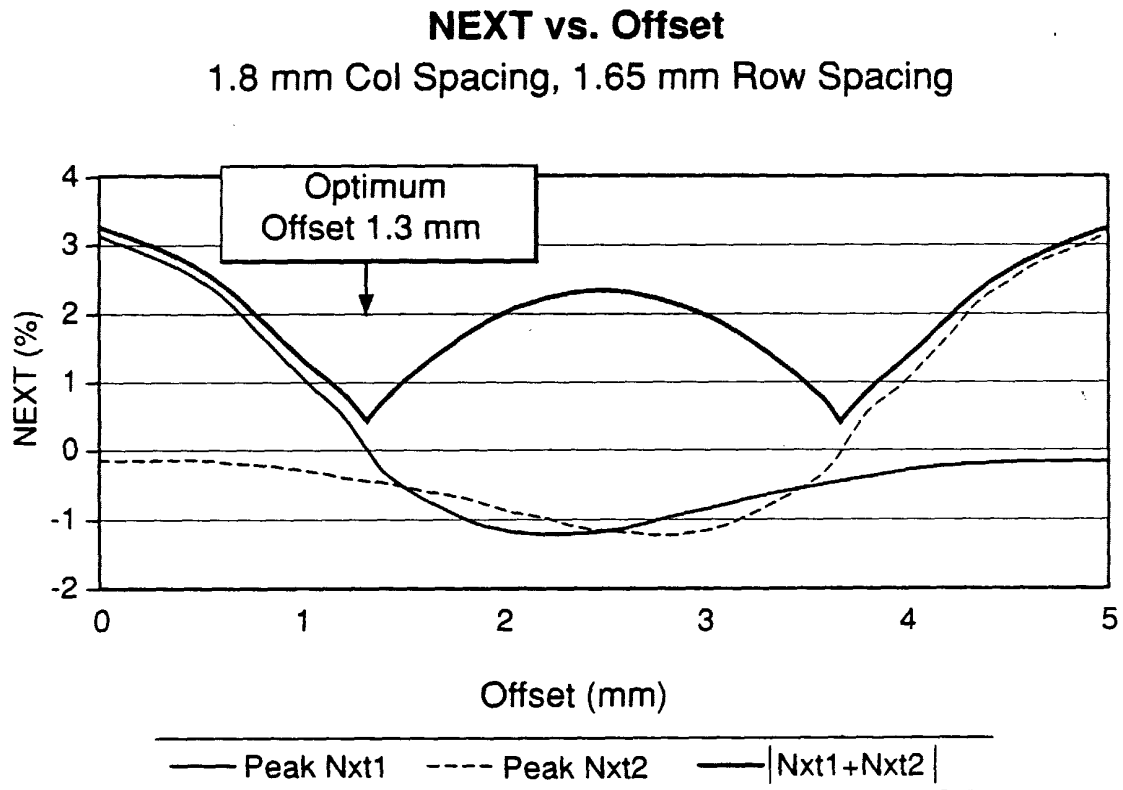


FIG. 3B

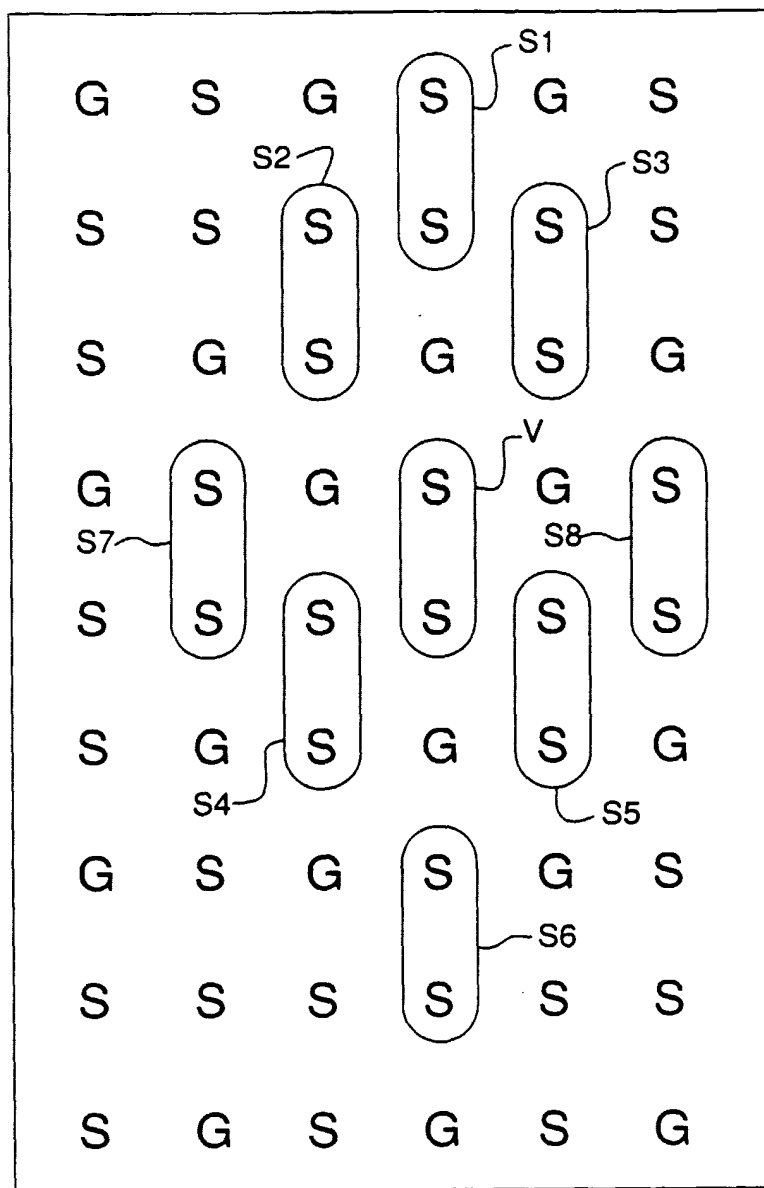


FIG. 3C

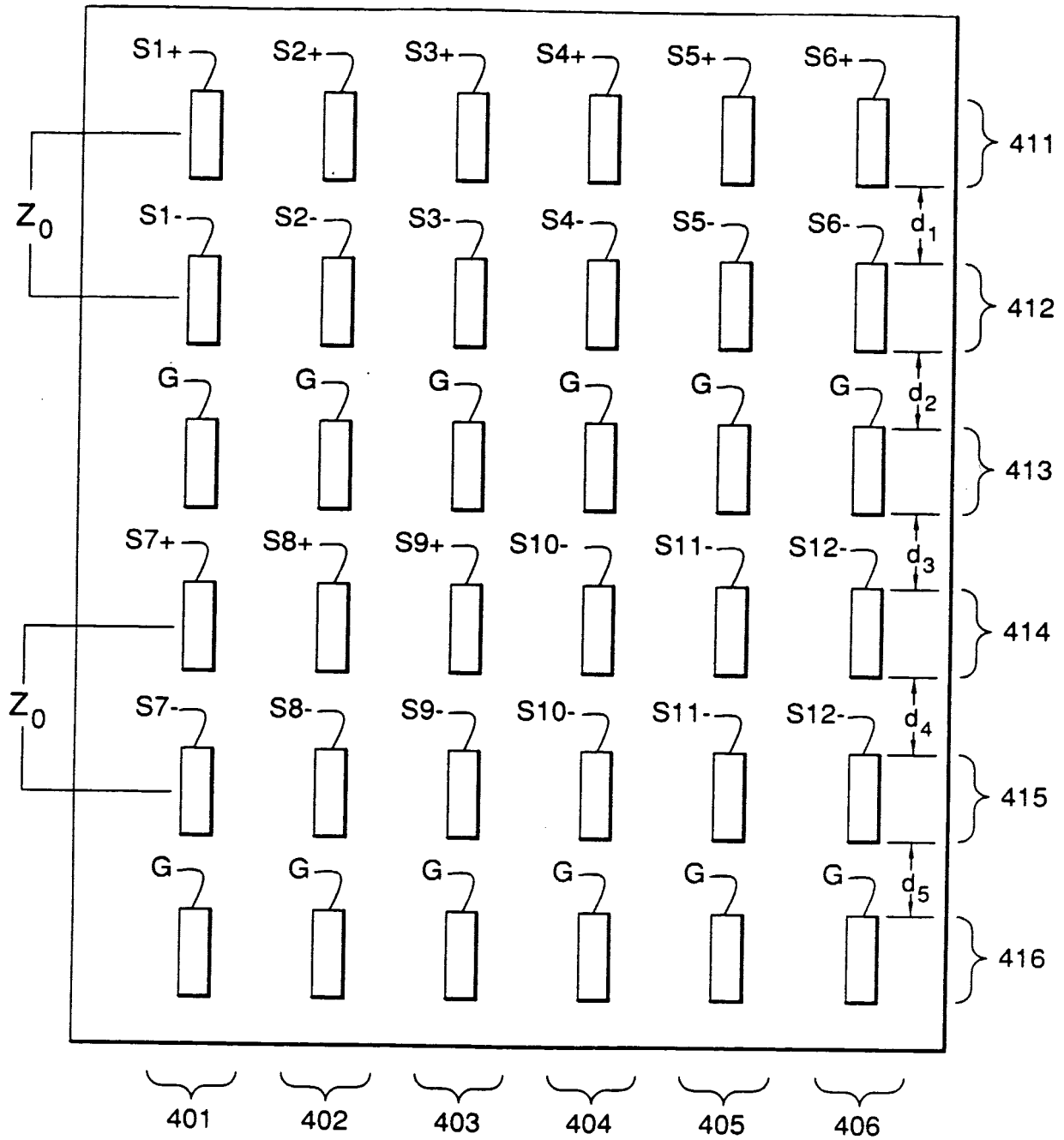


FIG. 4A



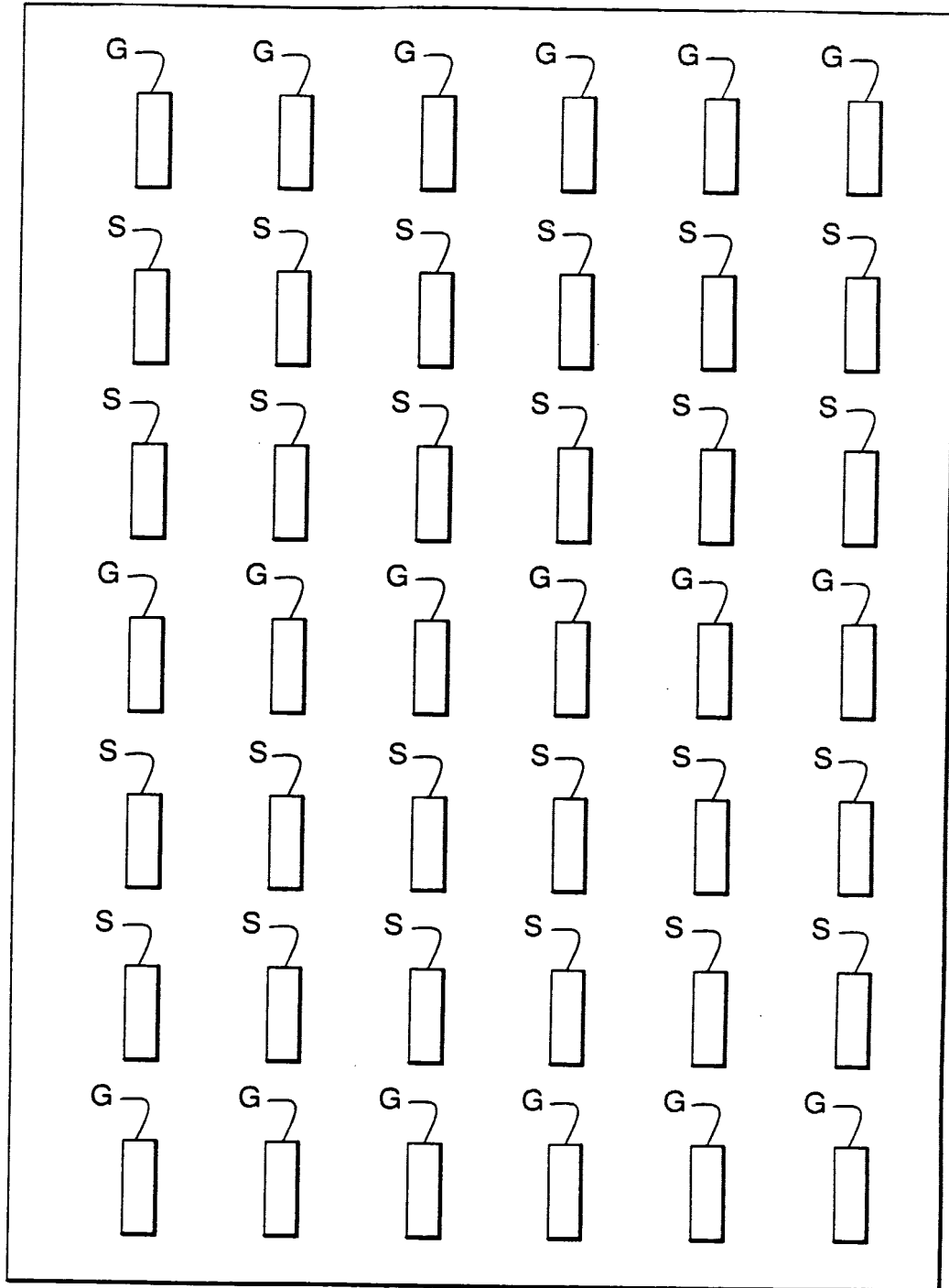


FIG. 4B.

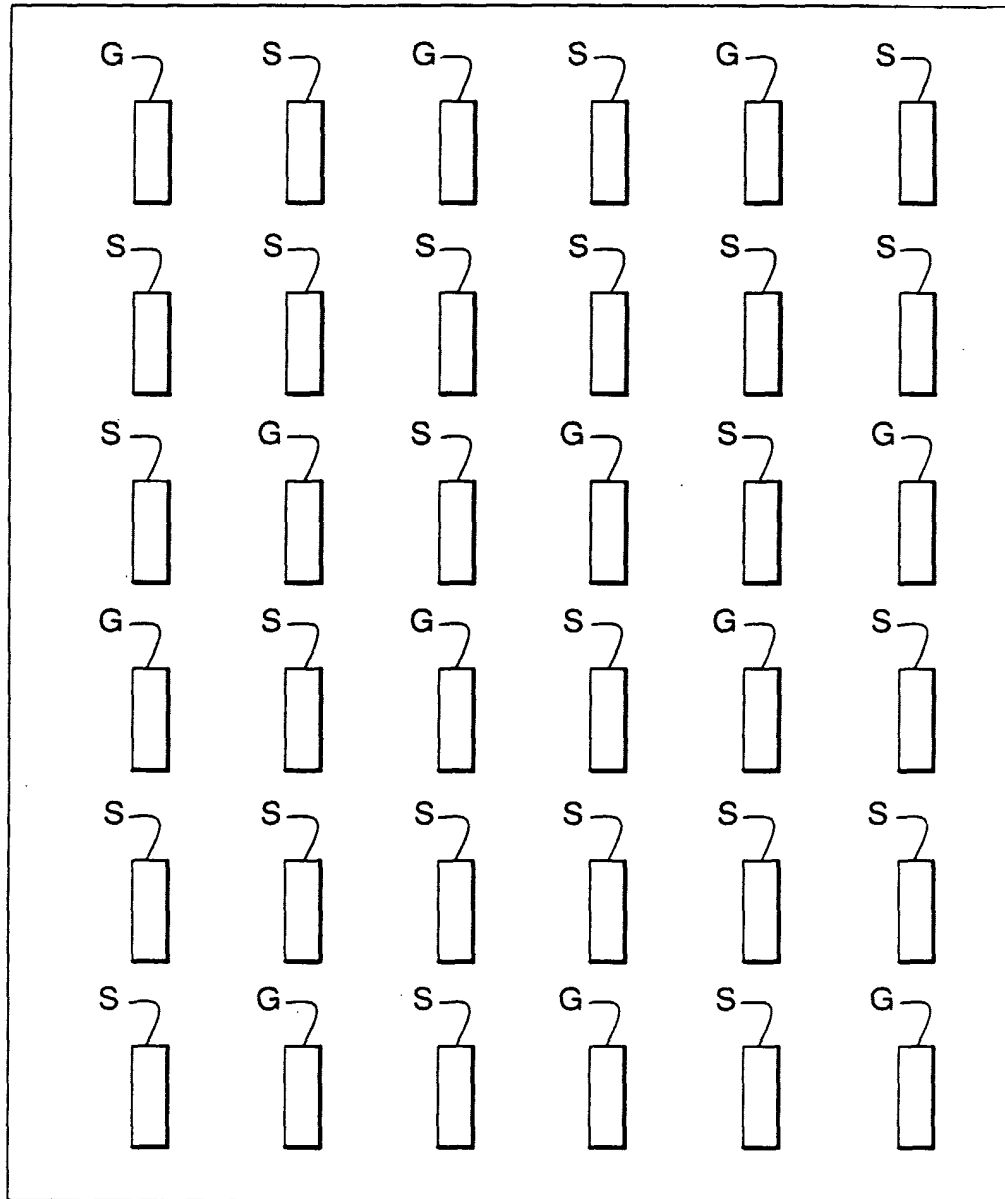


FIG. 4C

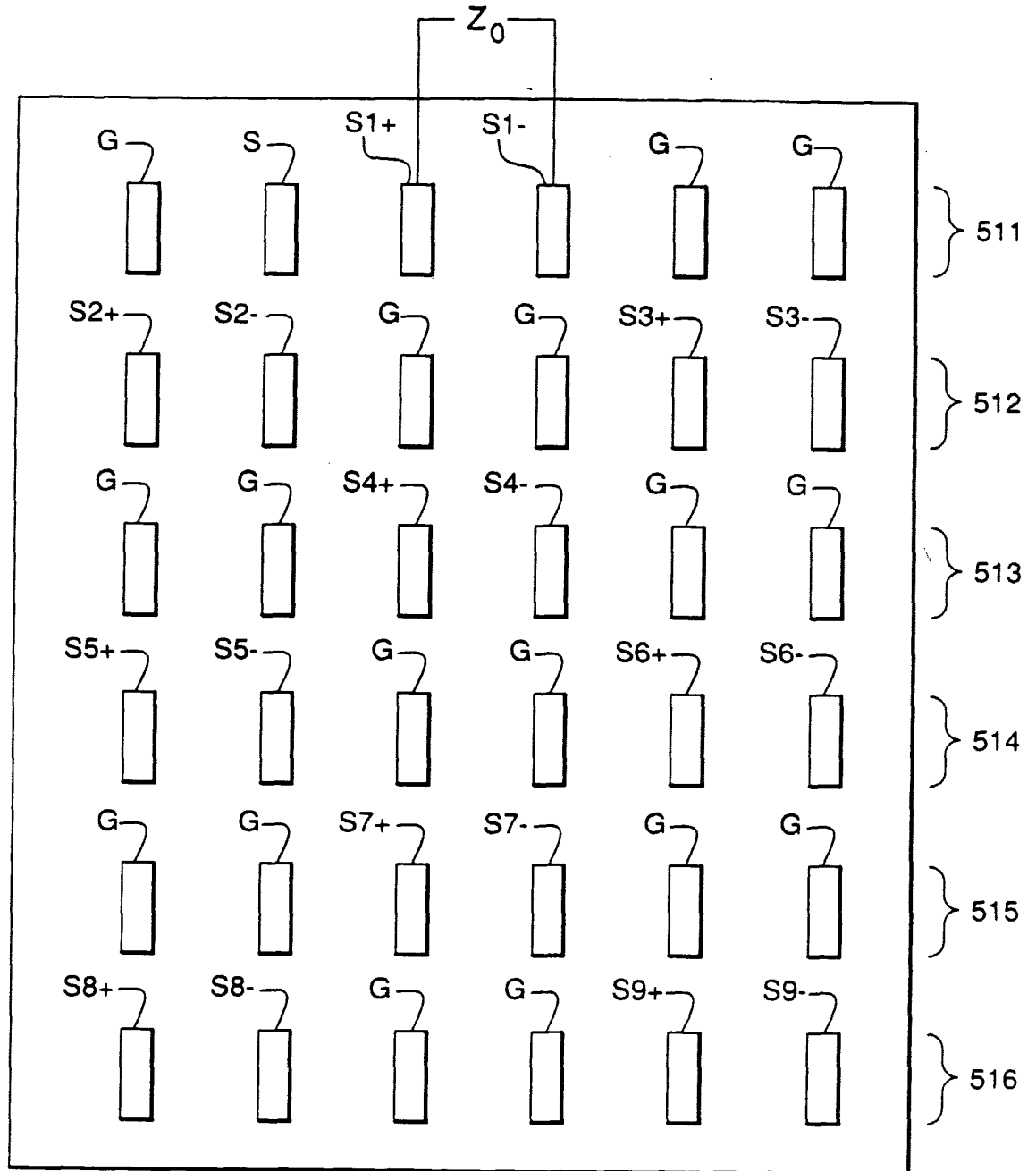


FIG. 5

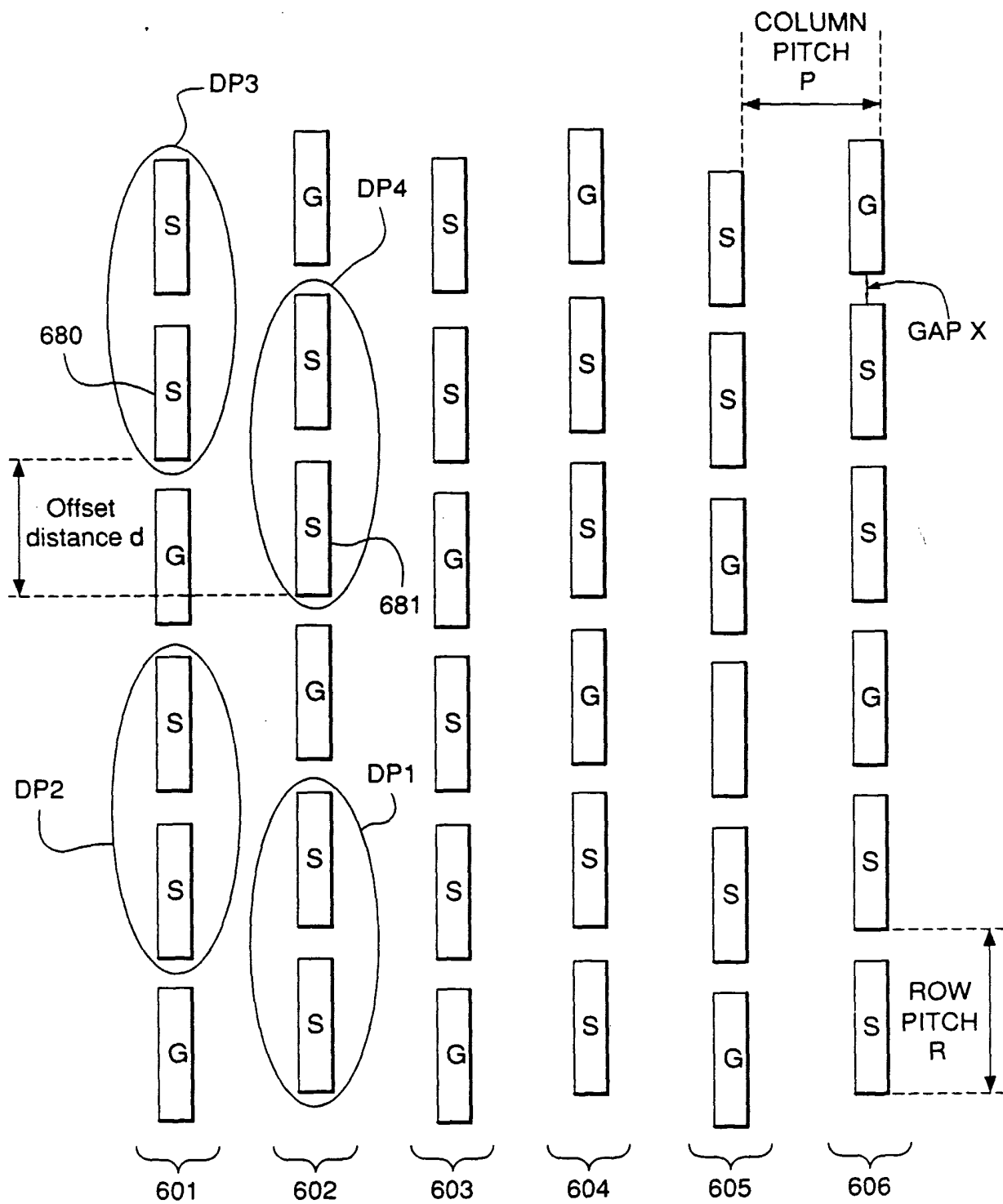


FIG. 6

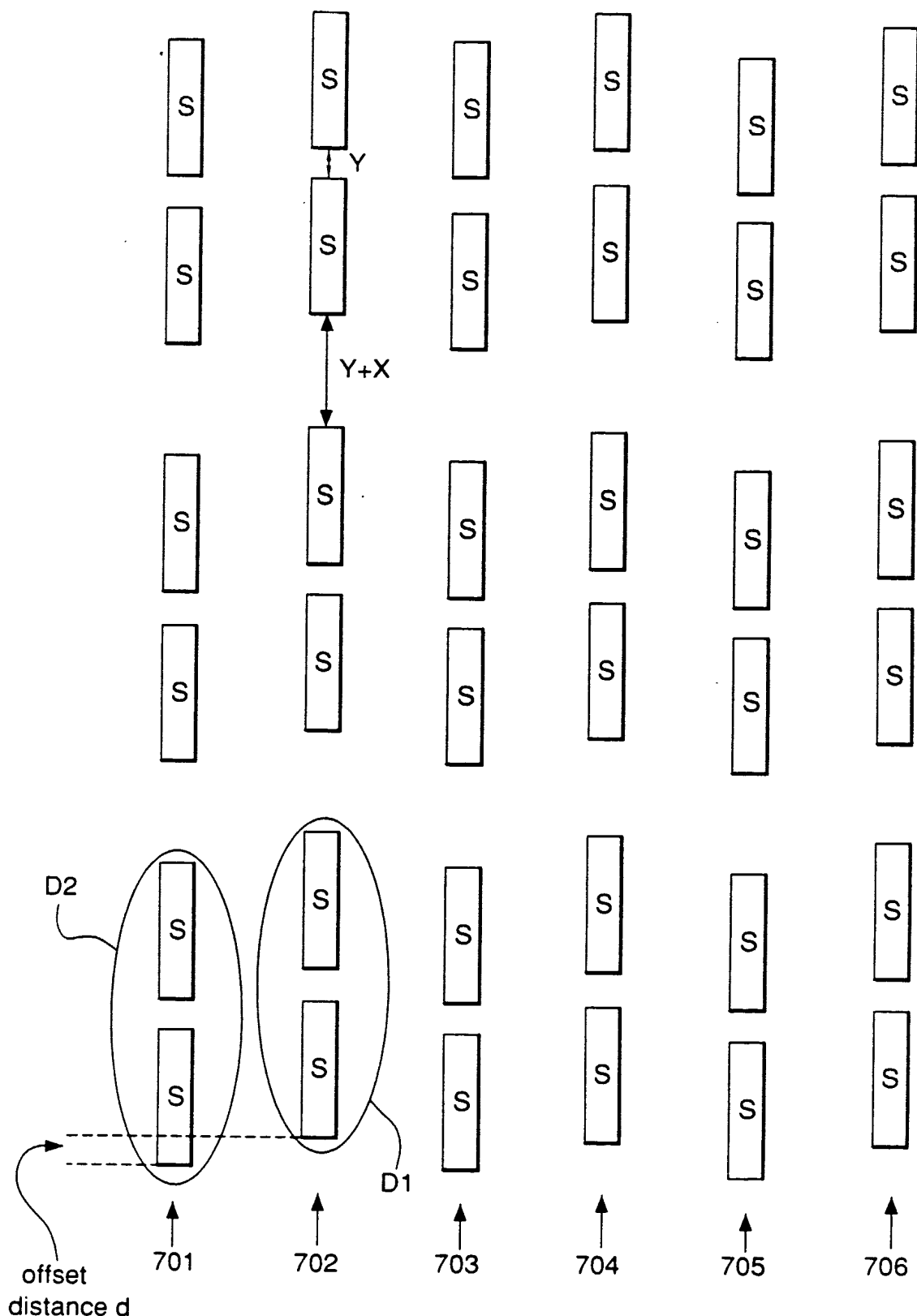


FIG. 7

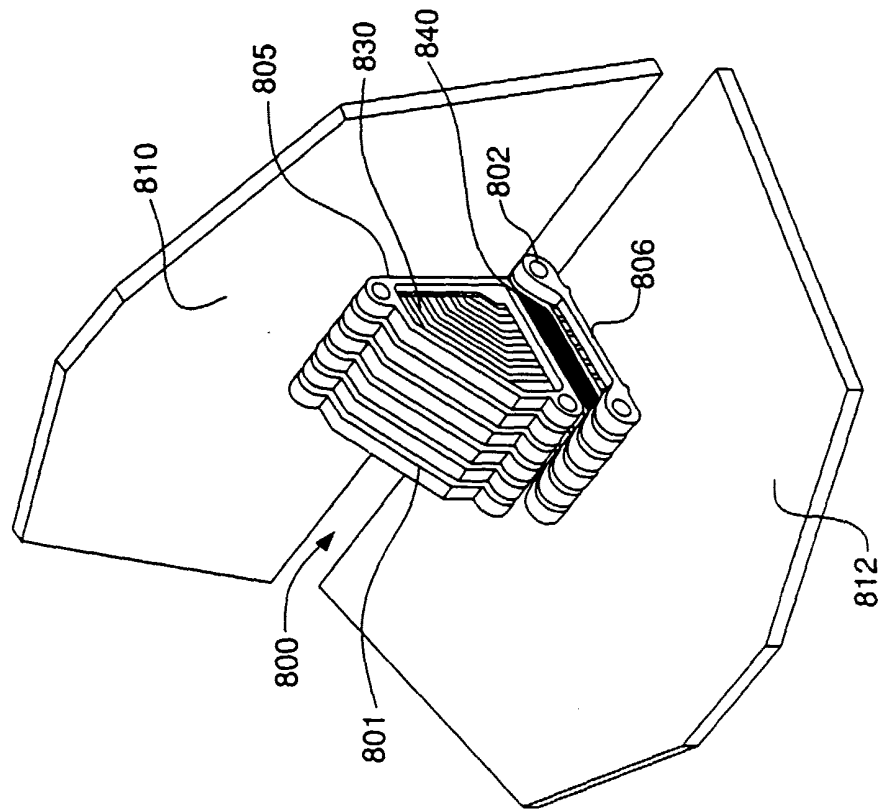


FIG. 8

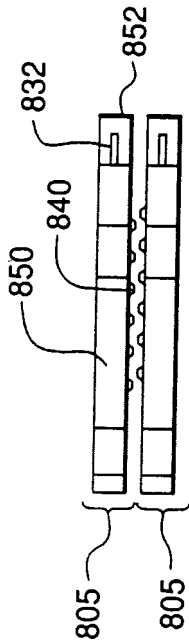


FIG. 11

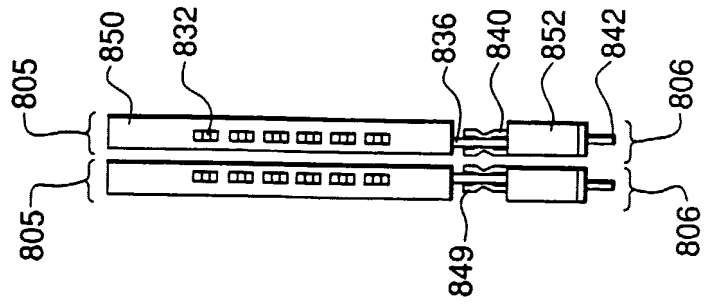


FIG. 10

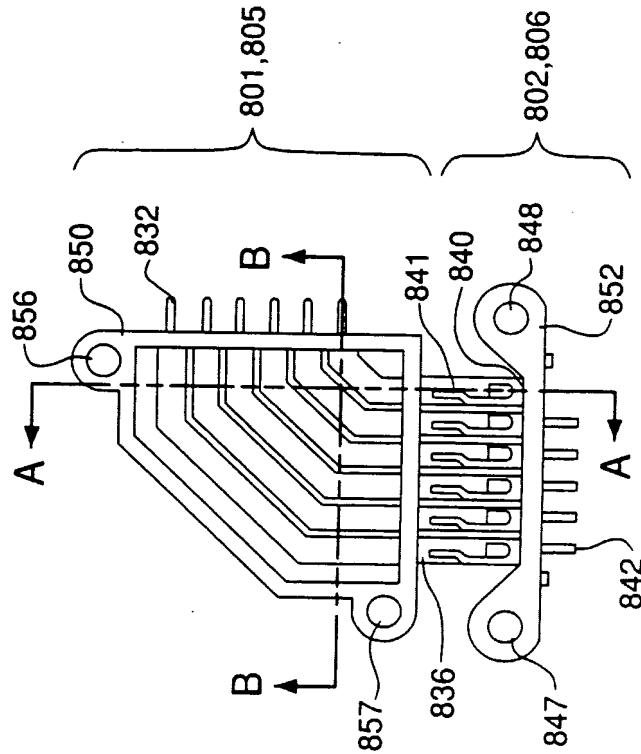


FIG. 9

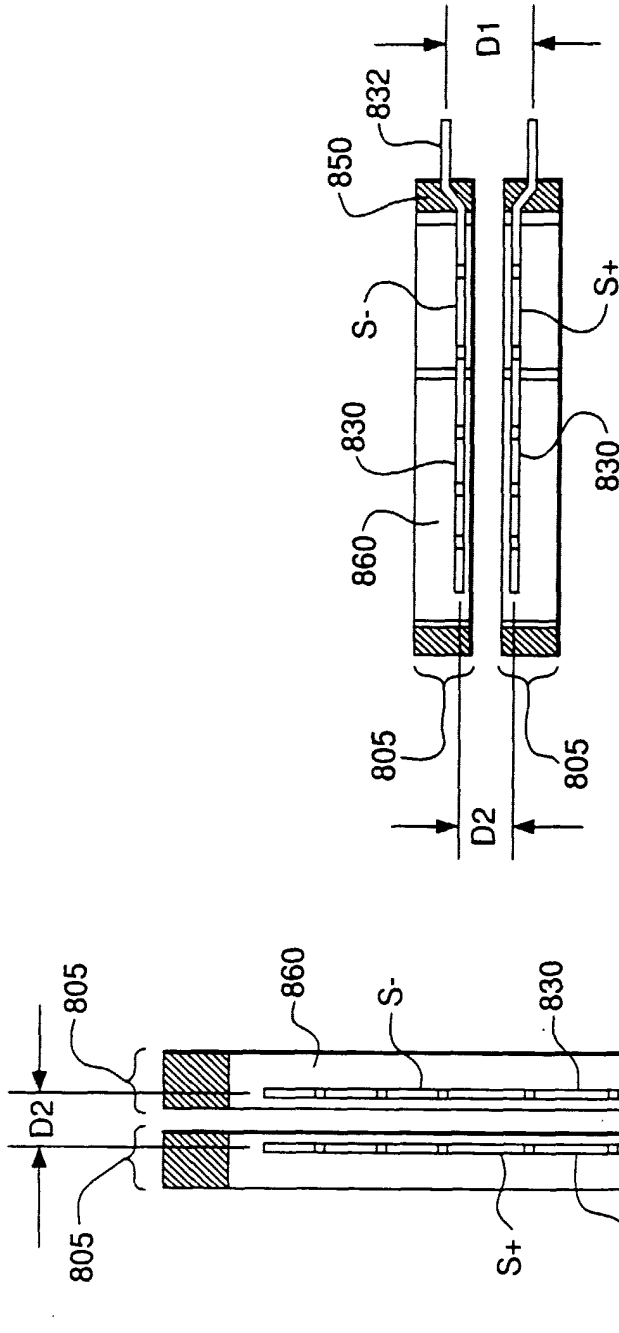
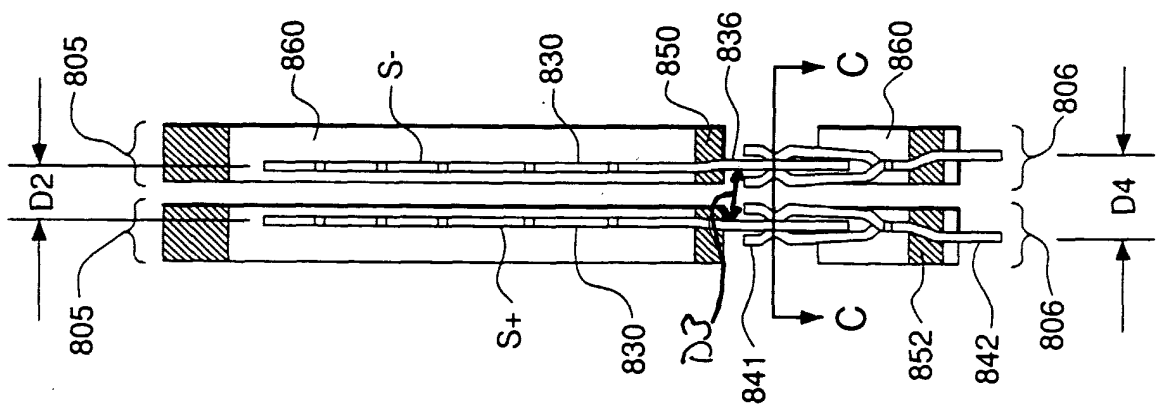


FIG. 12

FIG. 13 A





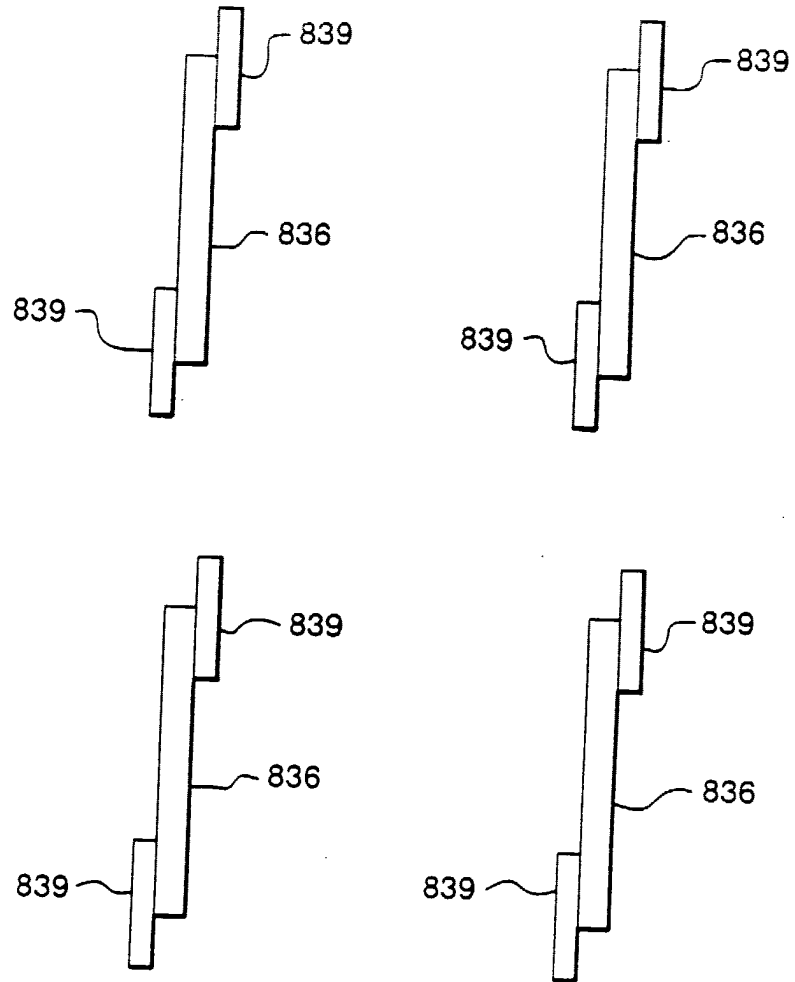


FIG. 13 B

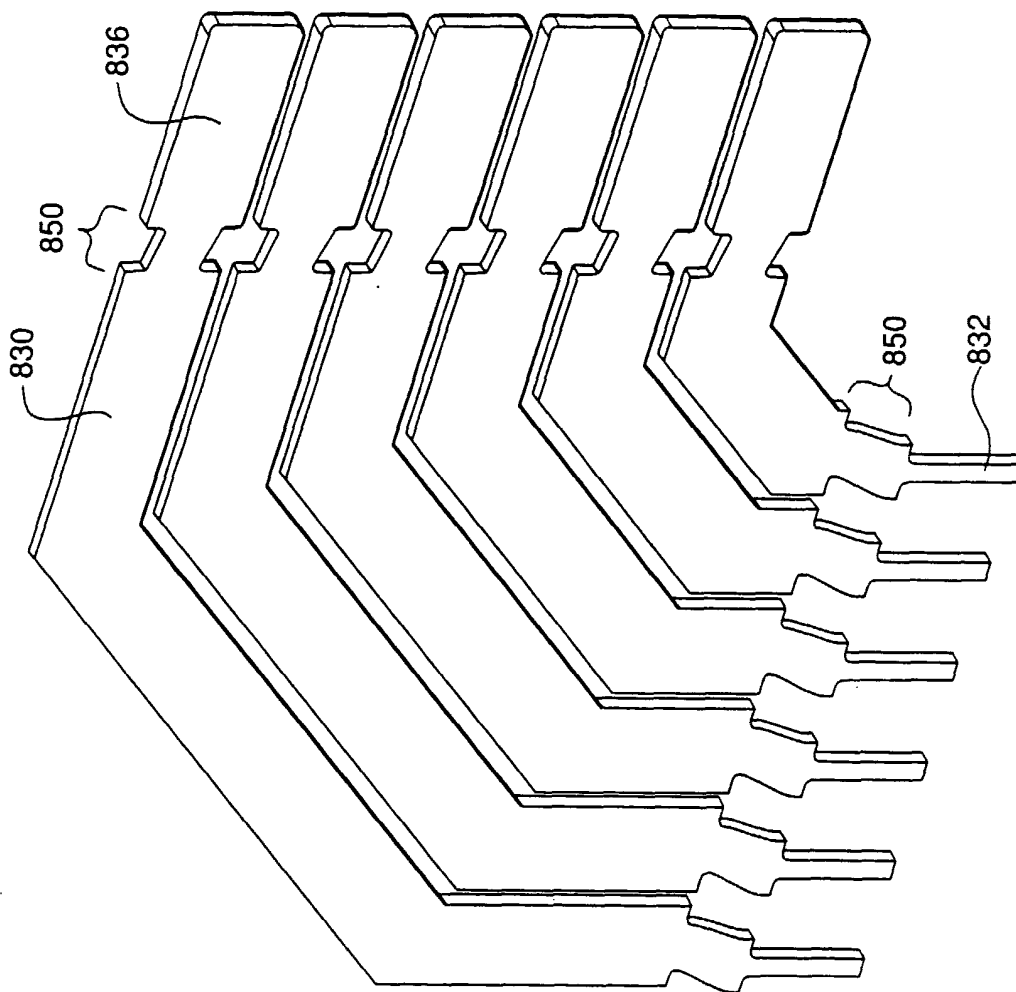


FIG. 14

840

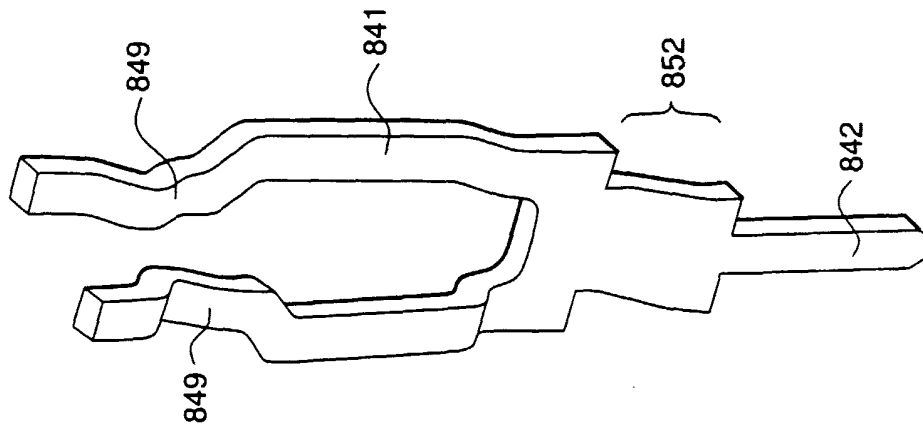


FIG. 15

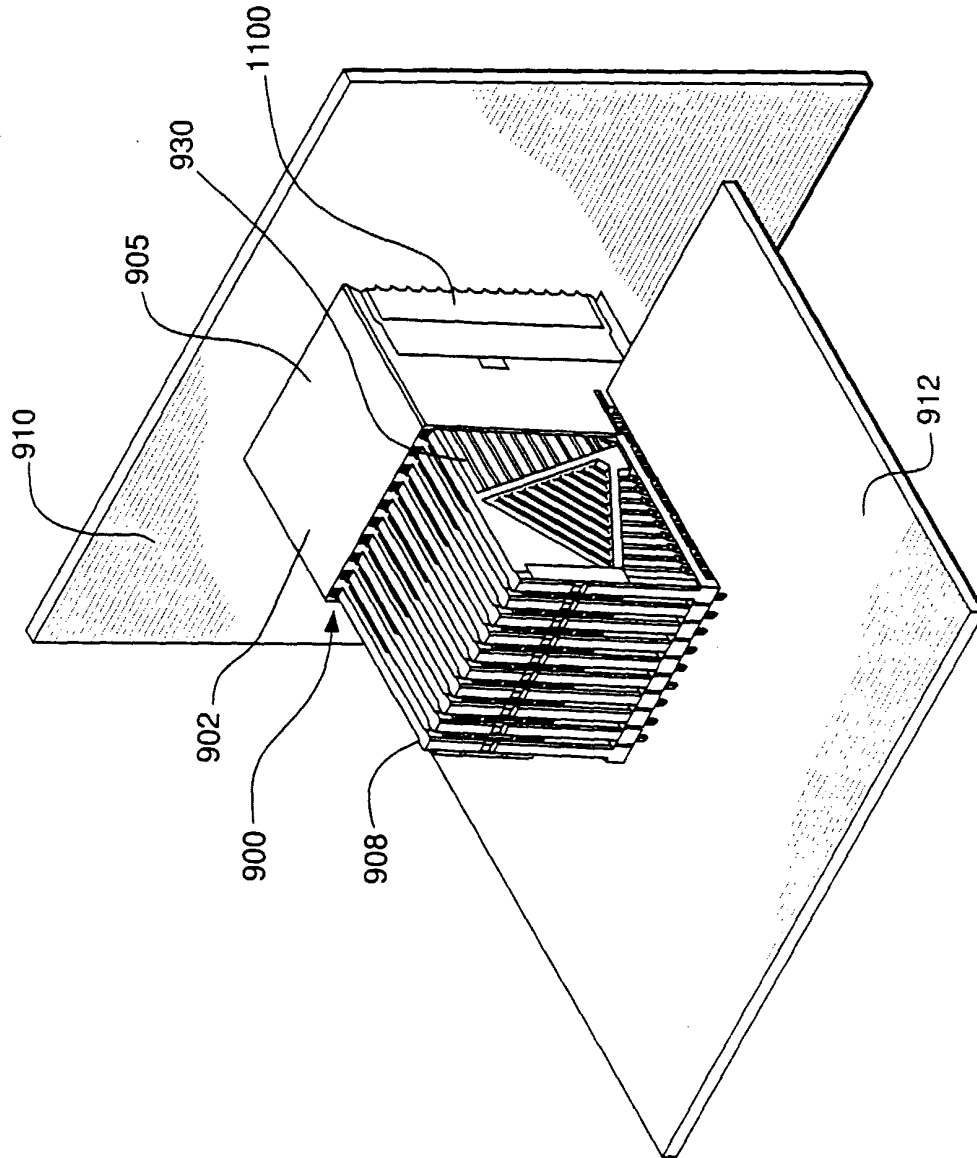


FIG. 16A

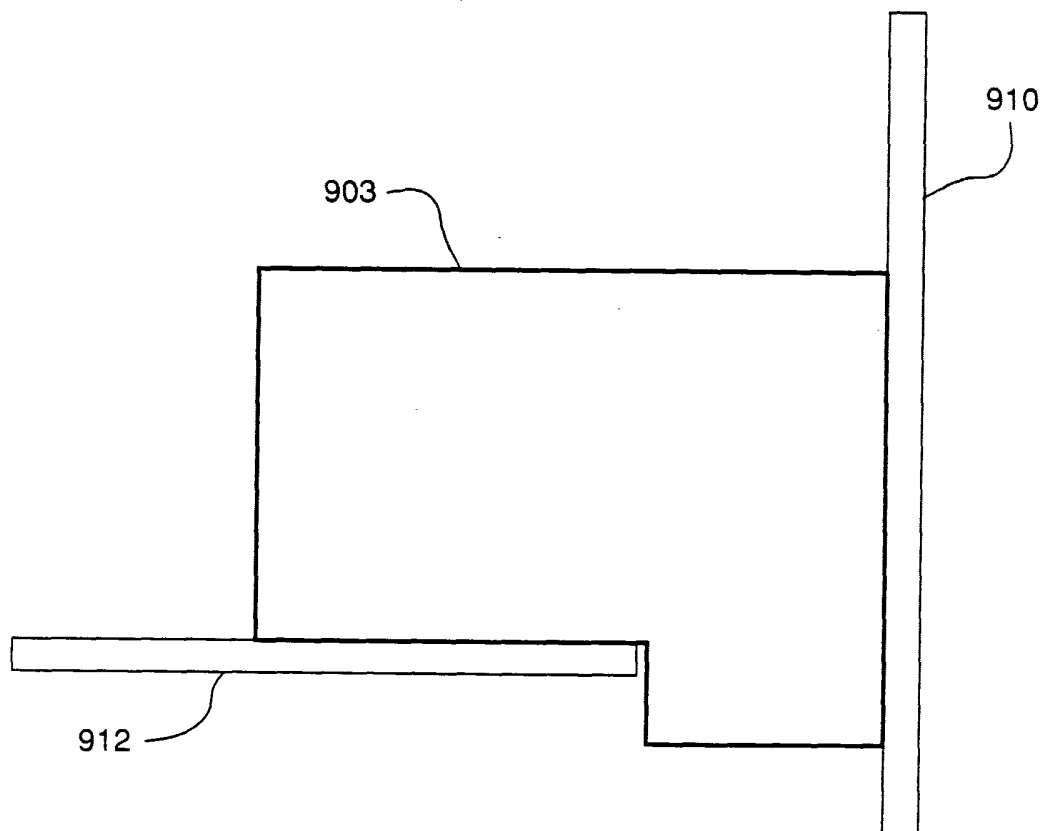


FIG. 16B

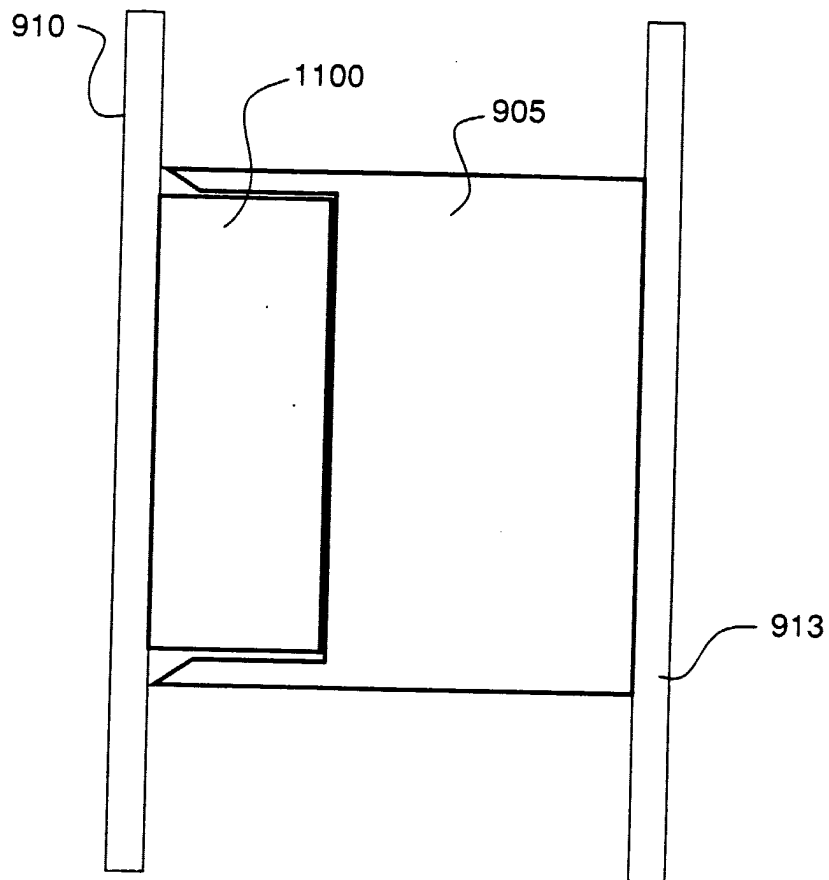


FIG. 16C

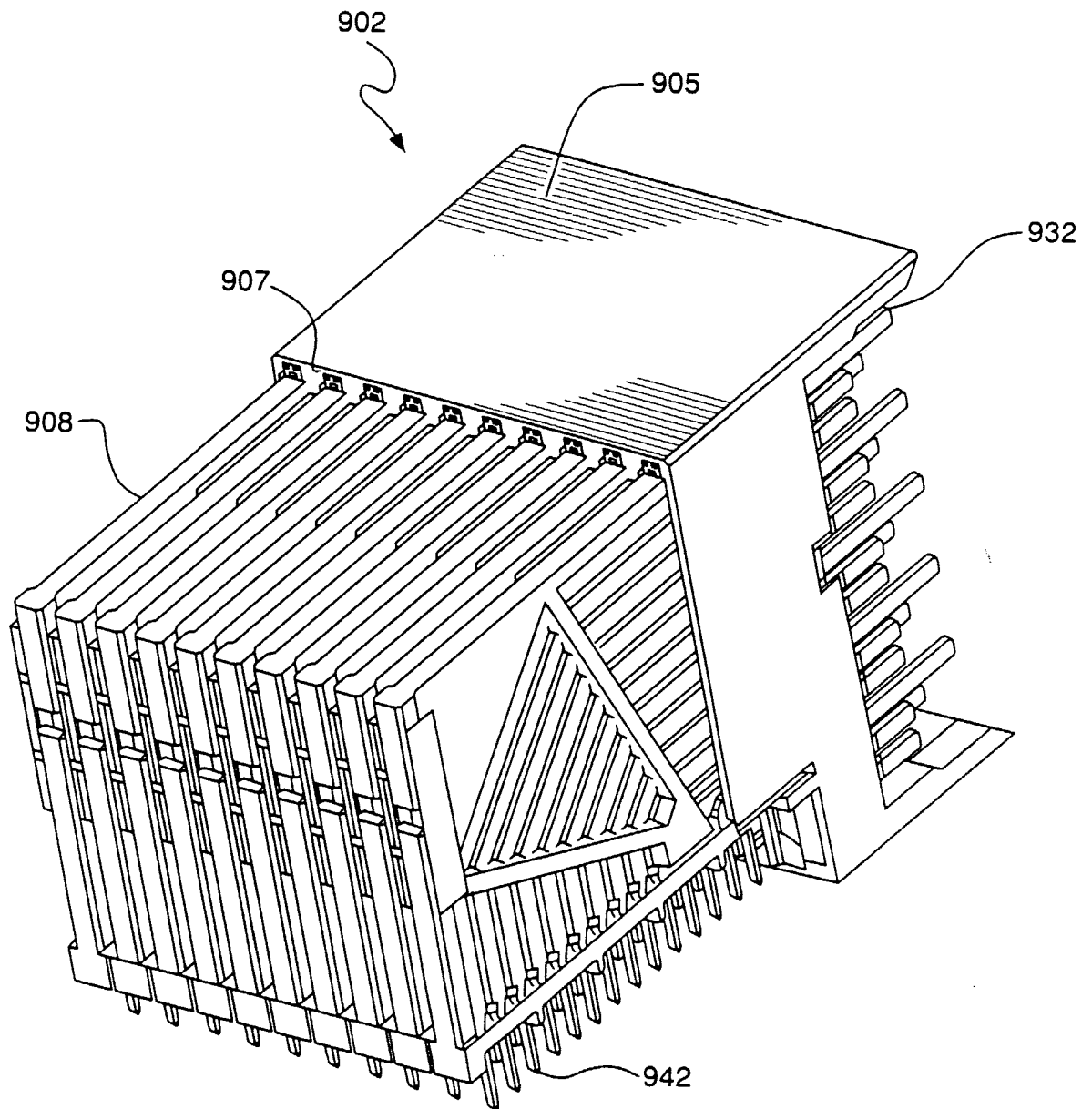


FIG. 17

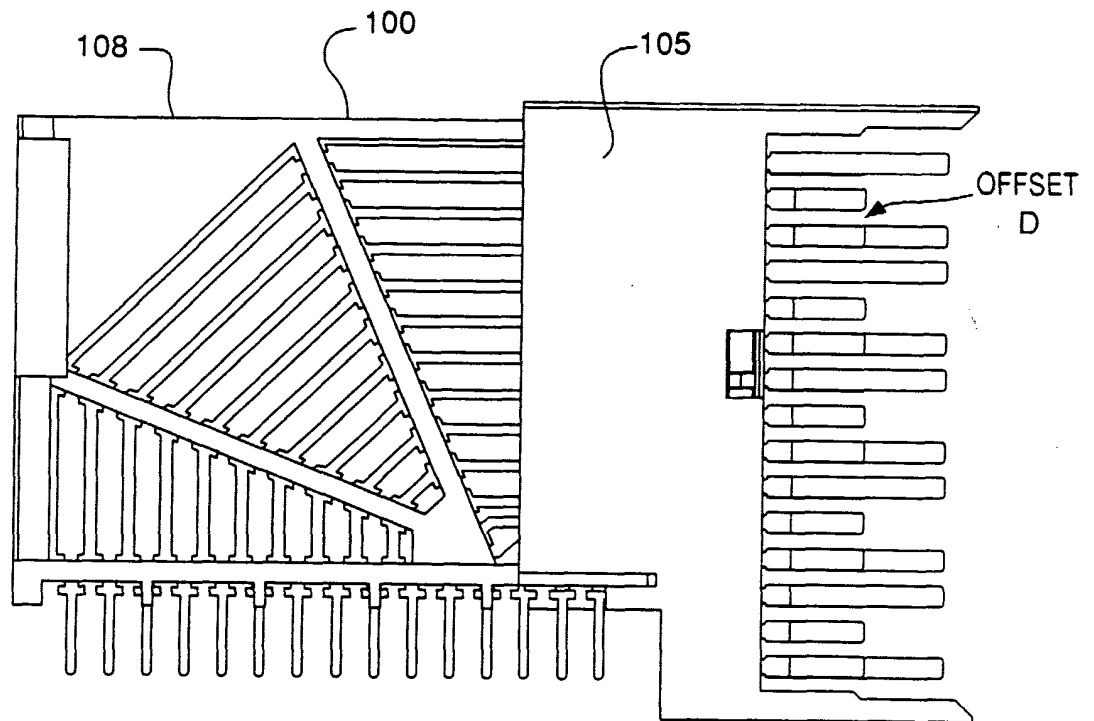


FIG. 18



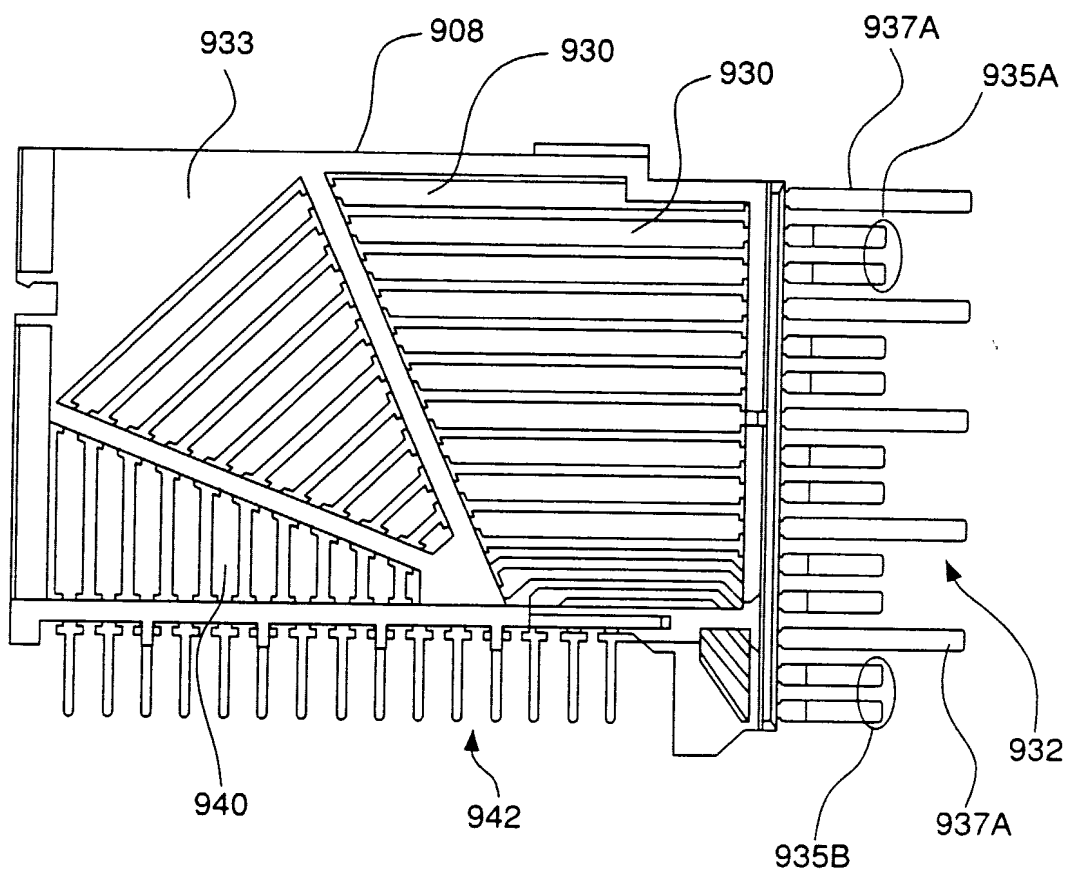


FIG. 19 *A*

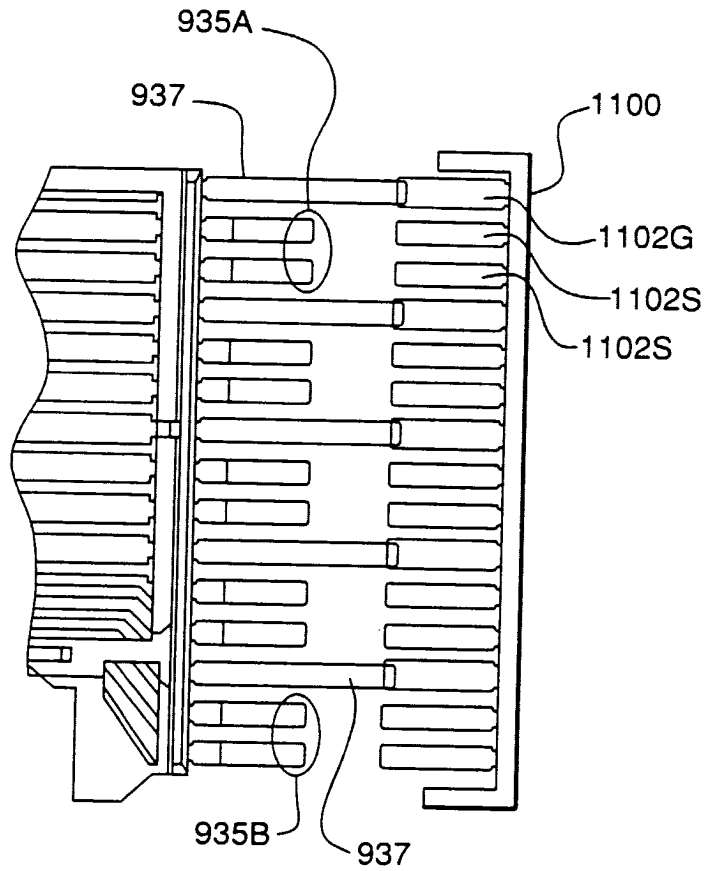


FIG. 19B

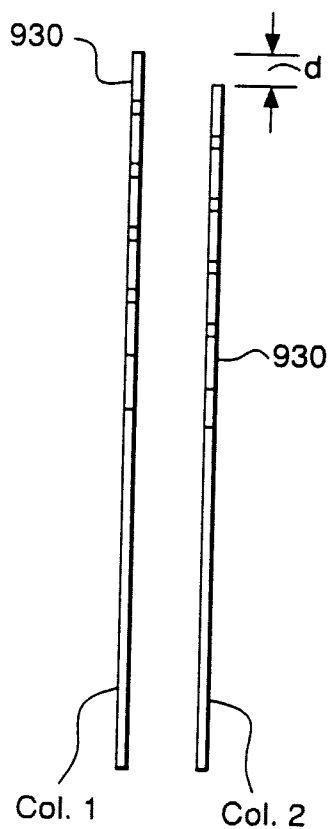


FIG. 20

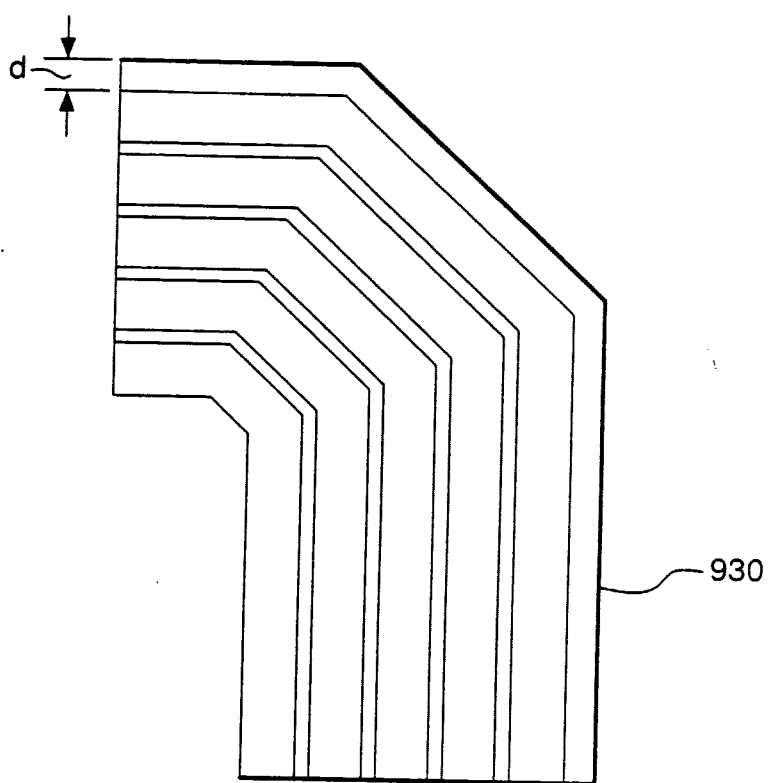


FIG. 21

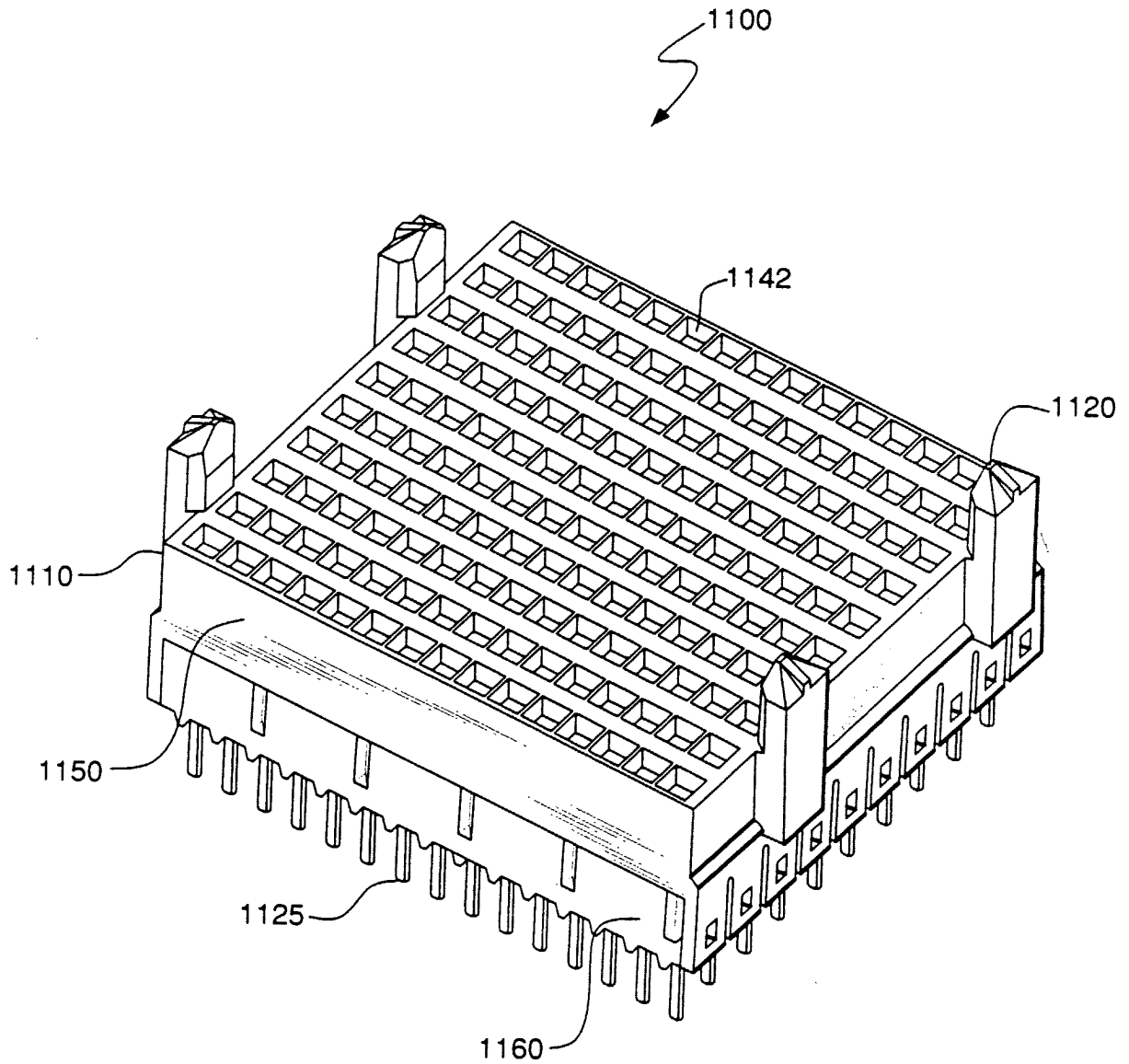


FIG. 22

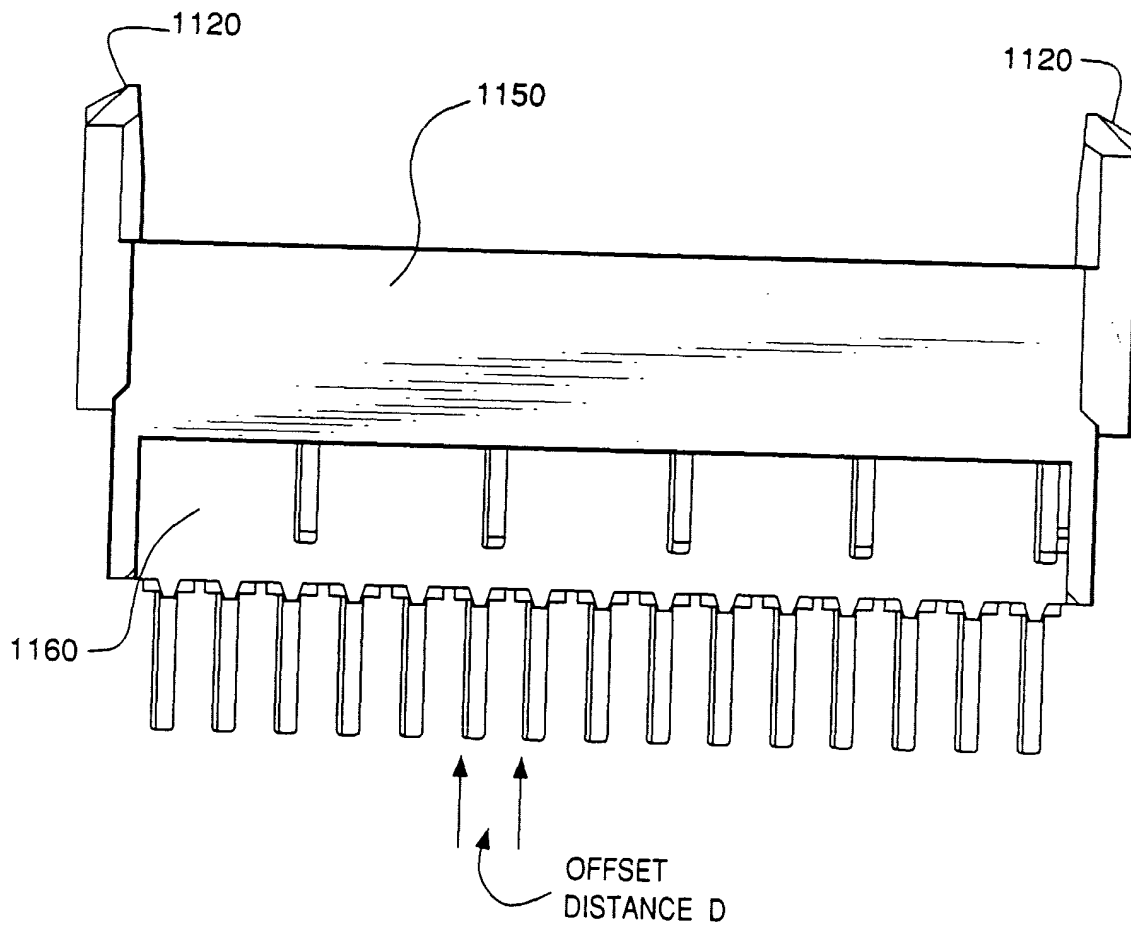
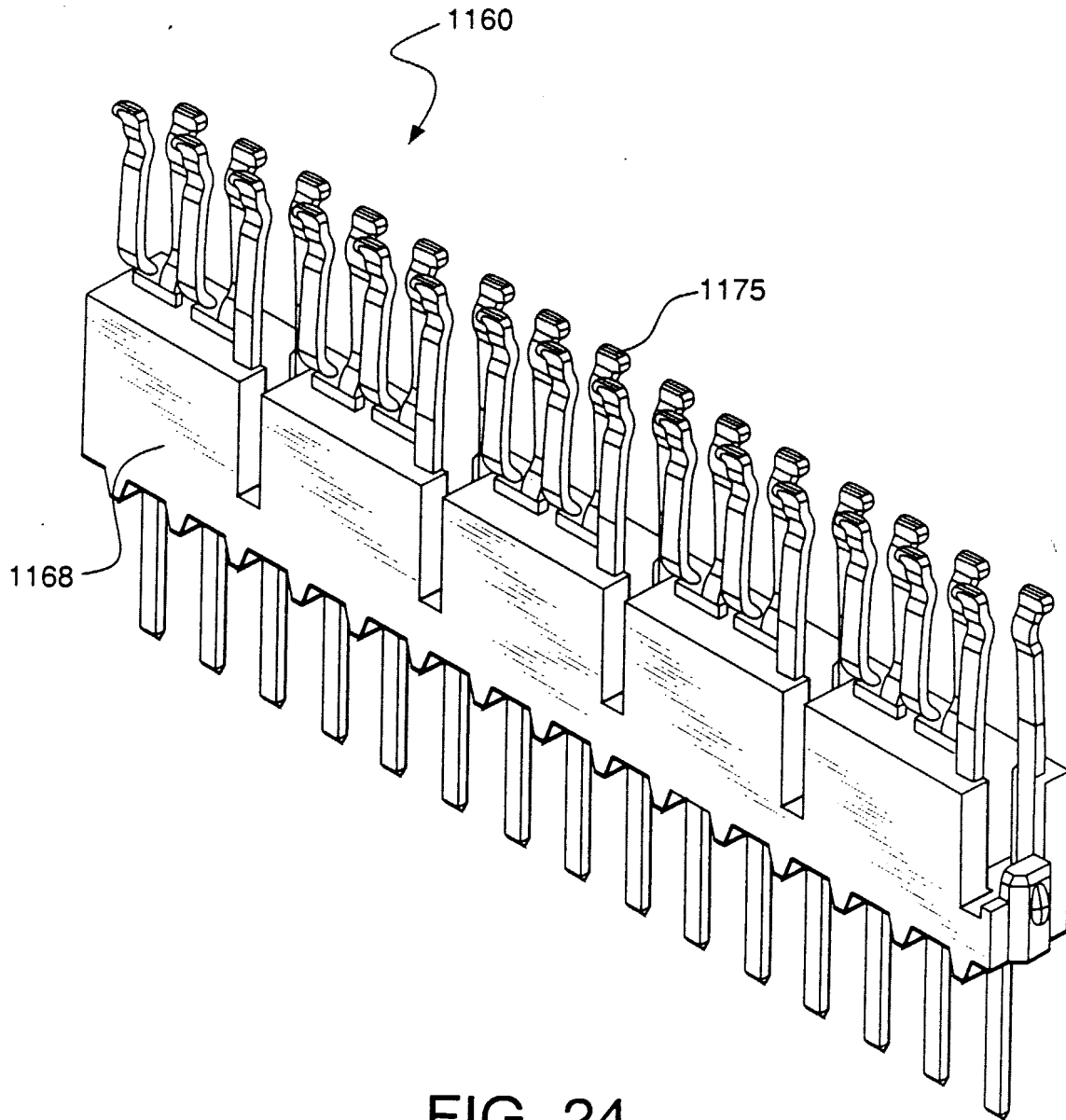
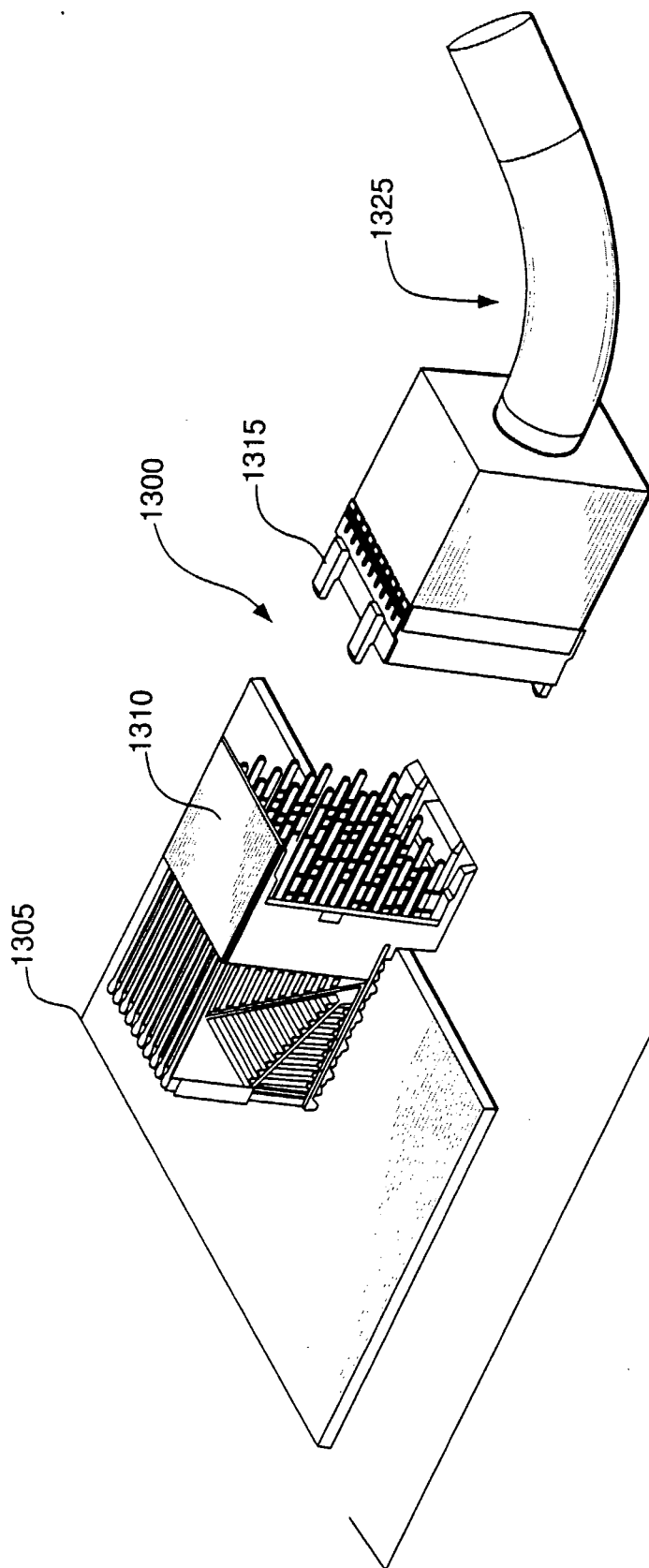


FIG. 23





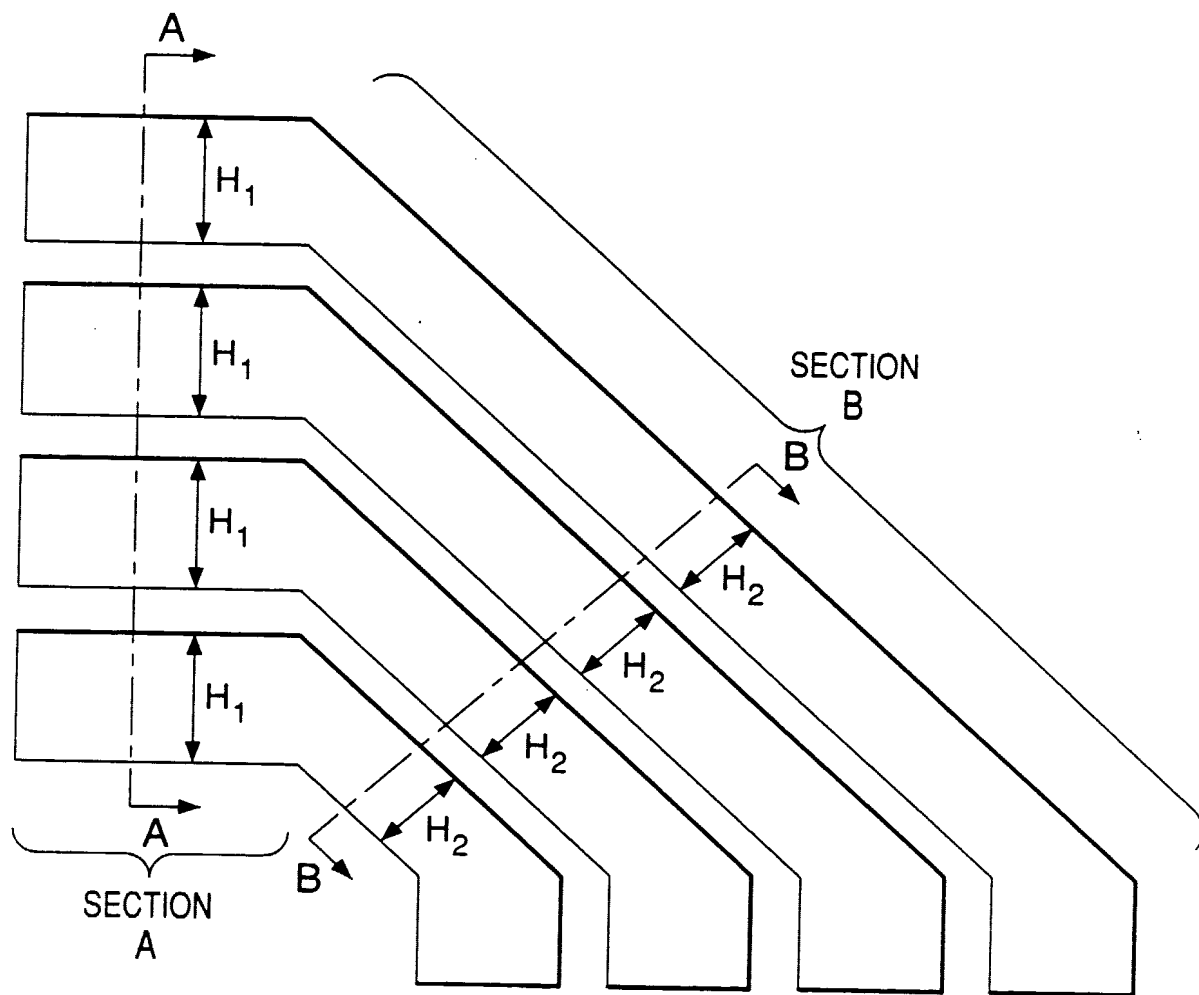
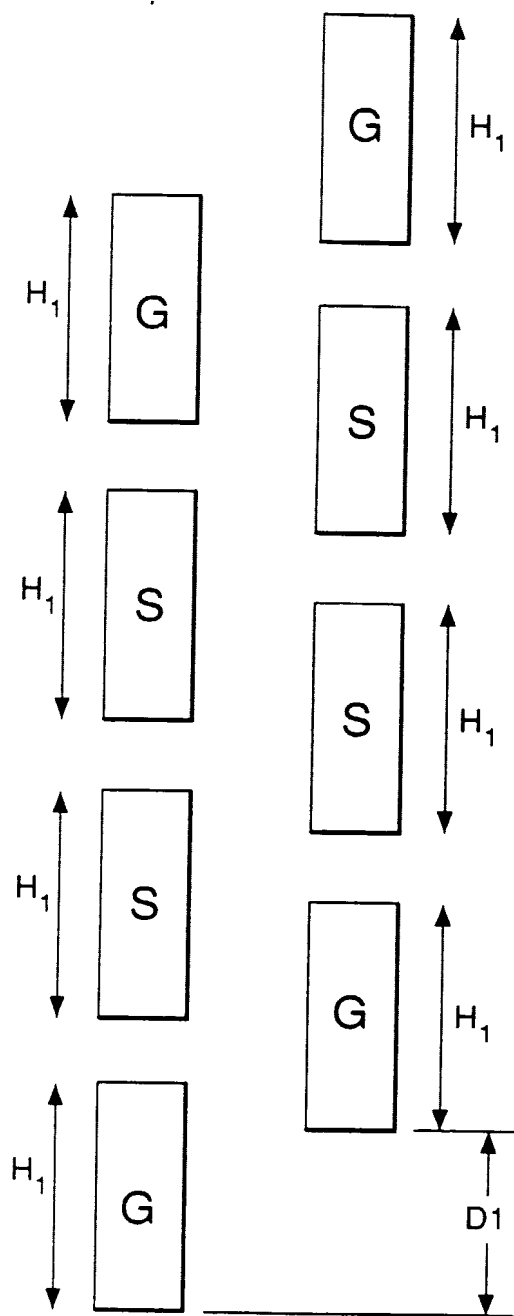


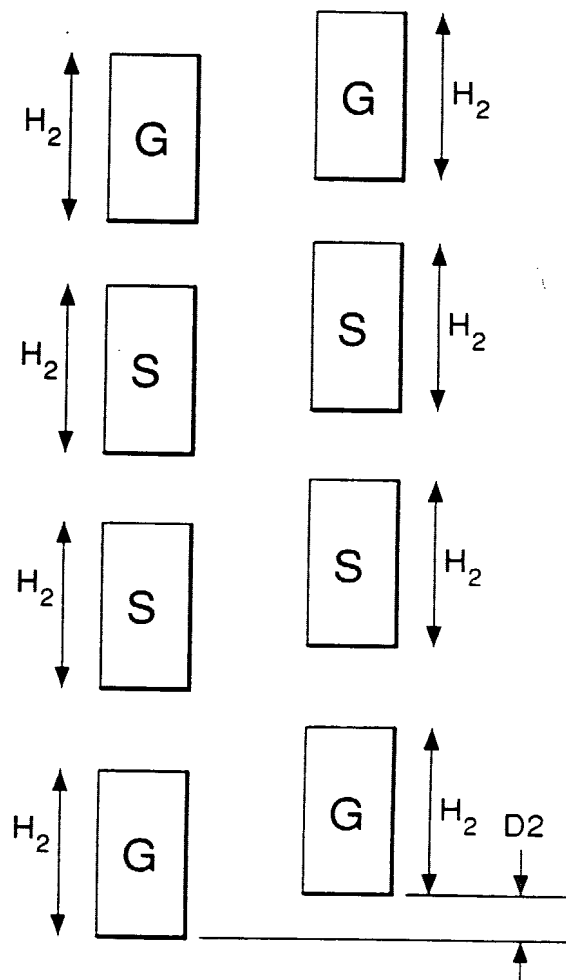
FIG. 26





Section A-A

FIG. 27



Section B-B

FIG. 28

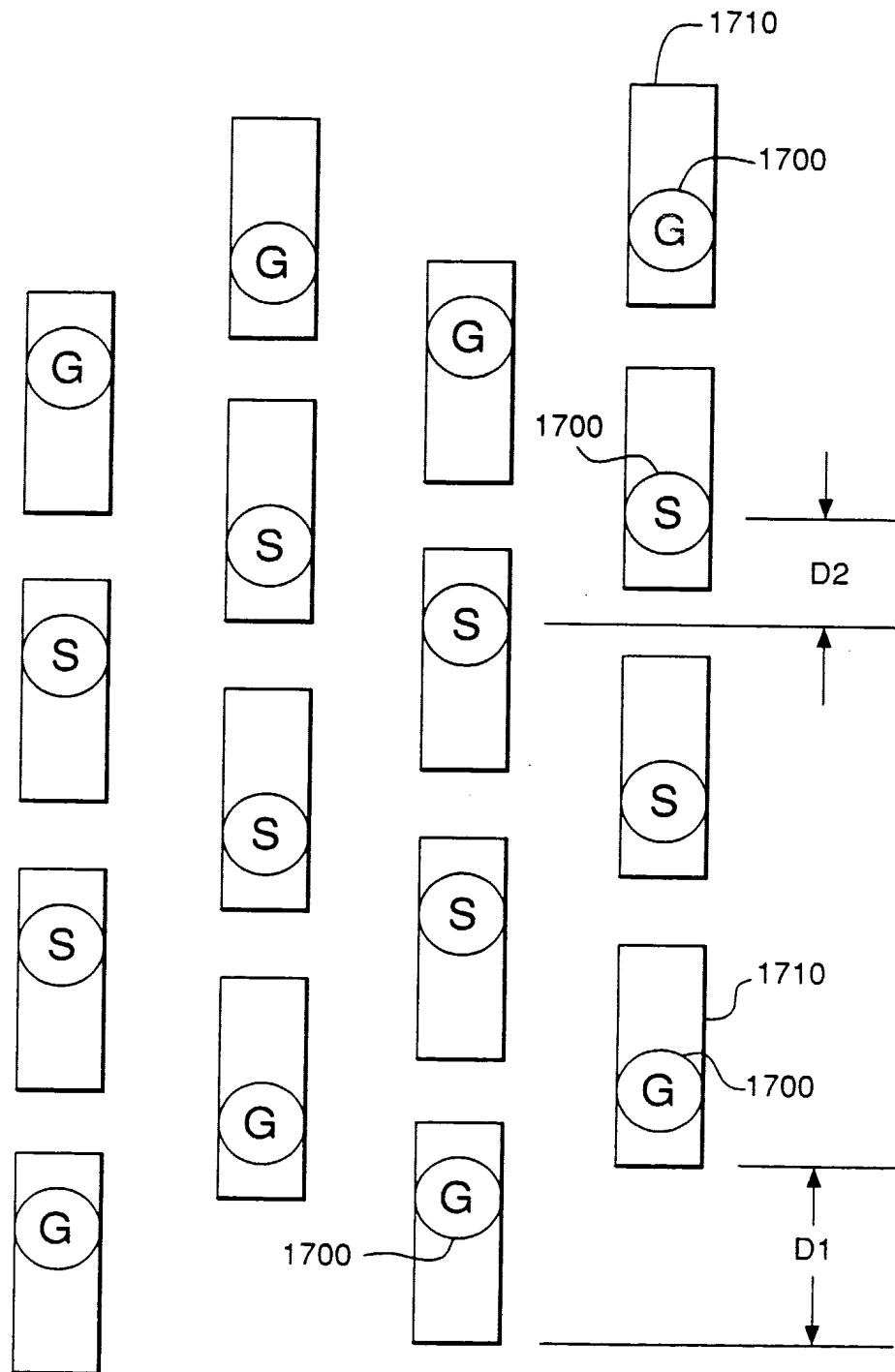


FIG. 29

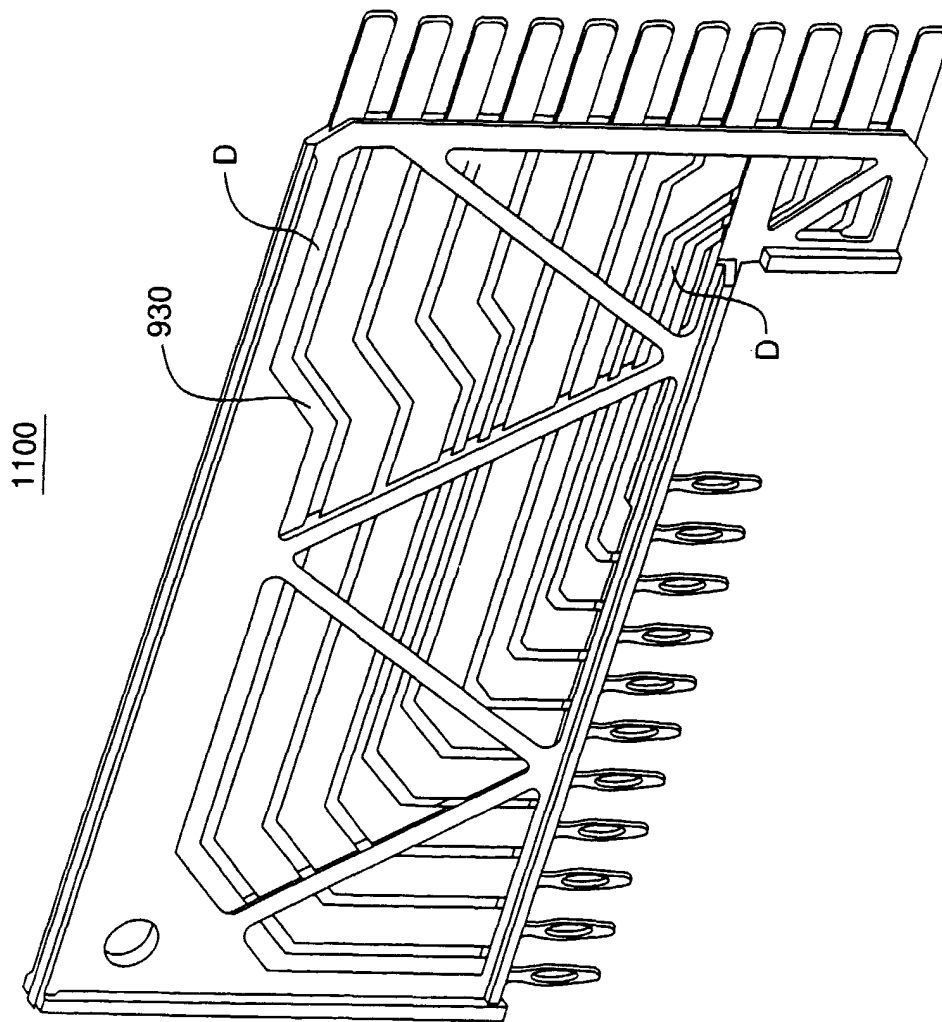


FIG. 30

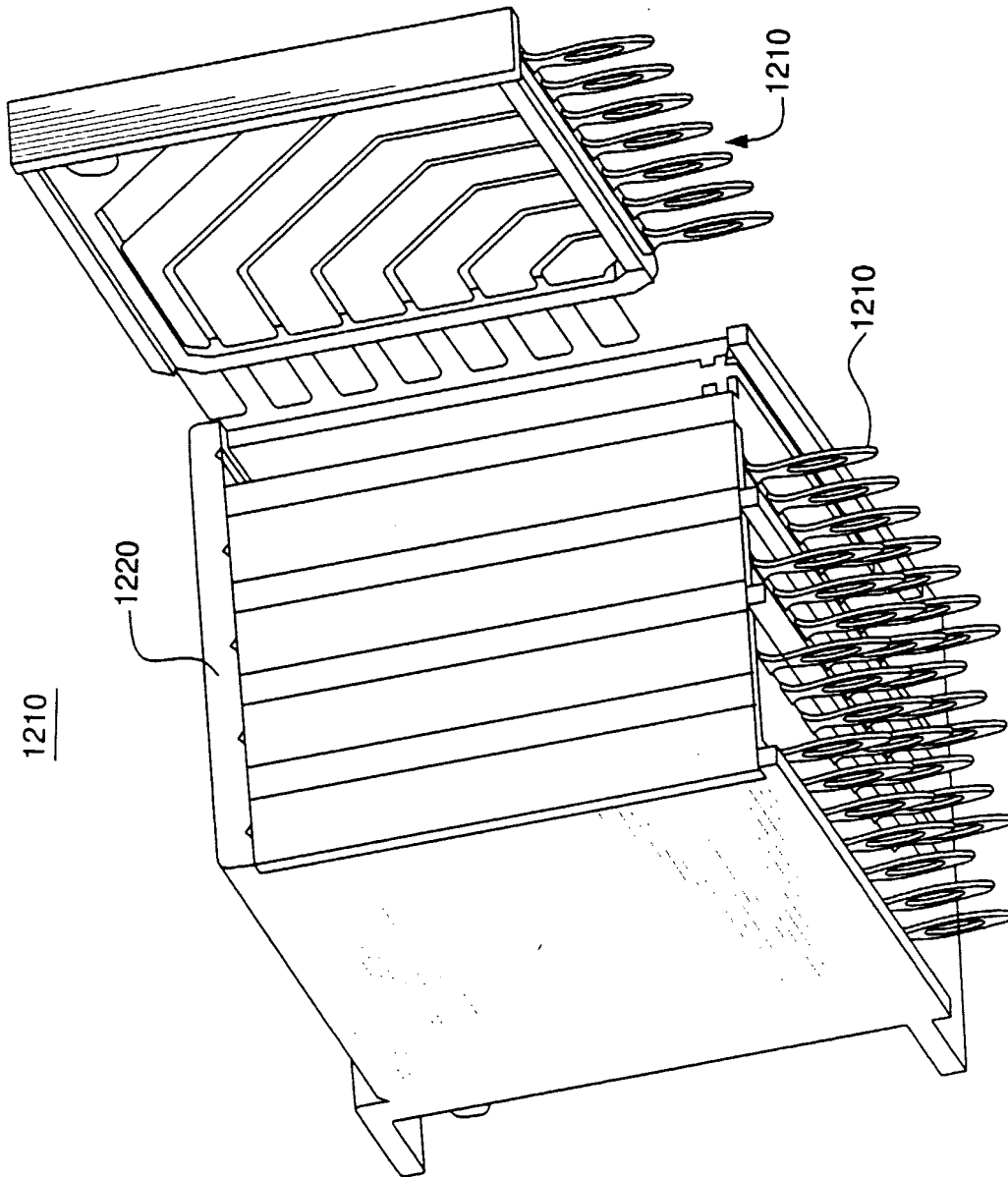


FIG. 31

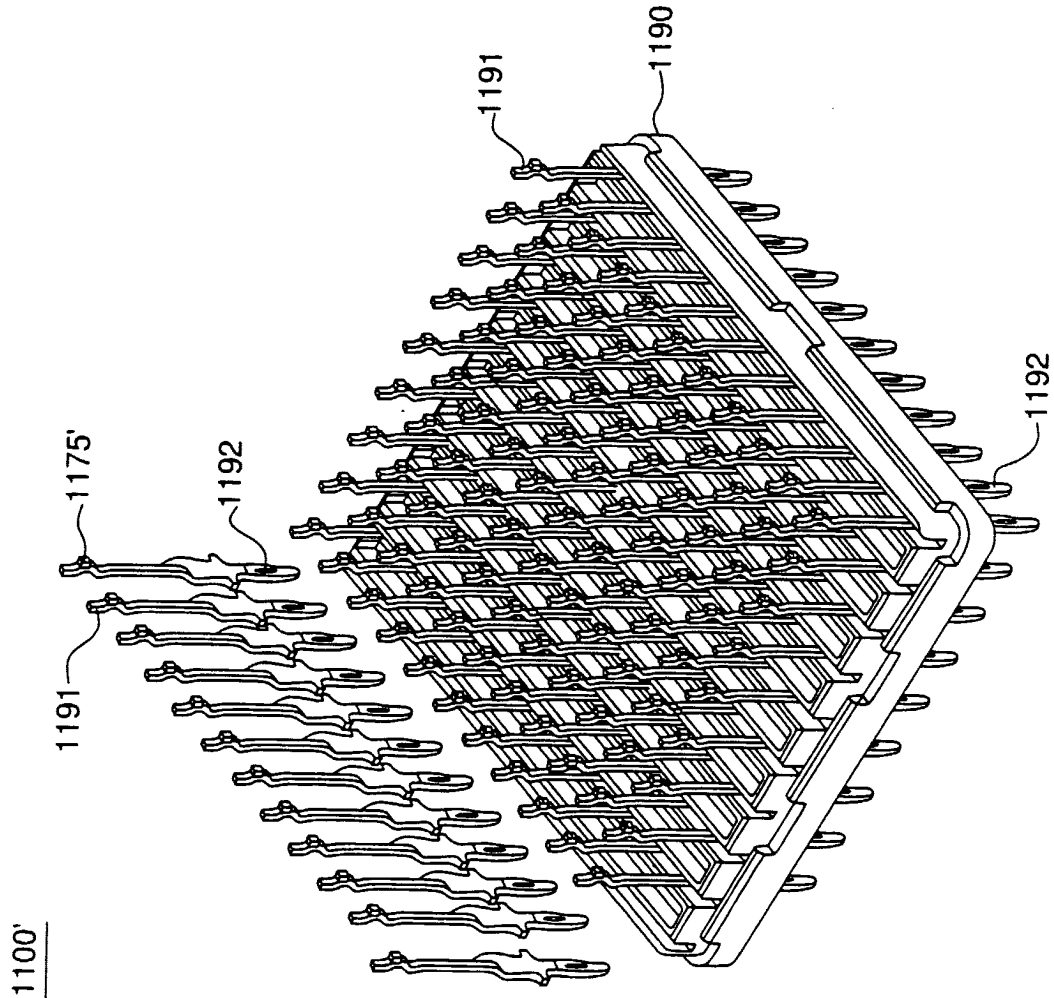


FIG. 32

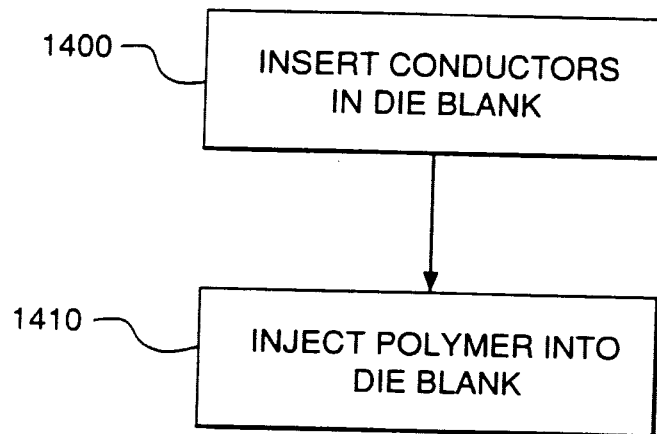
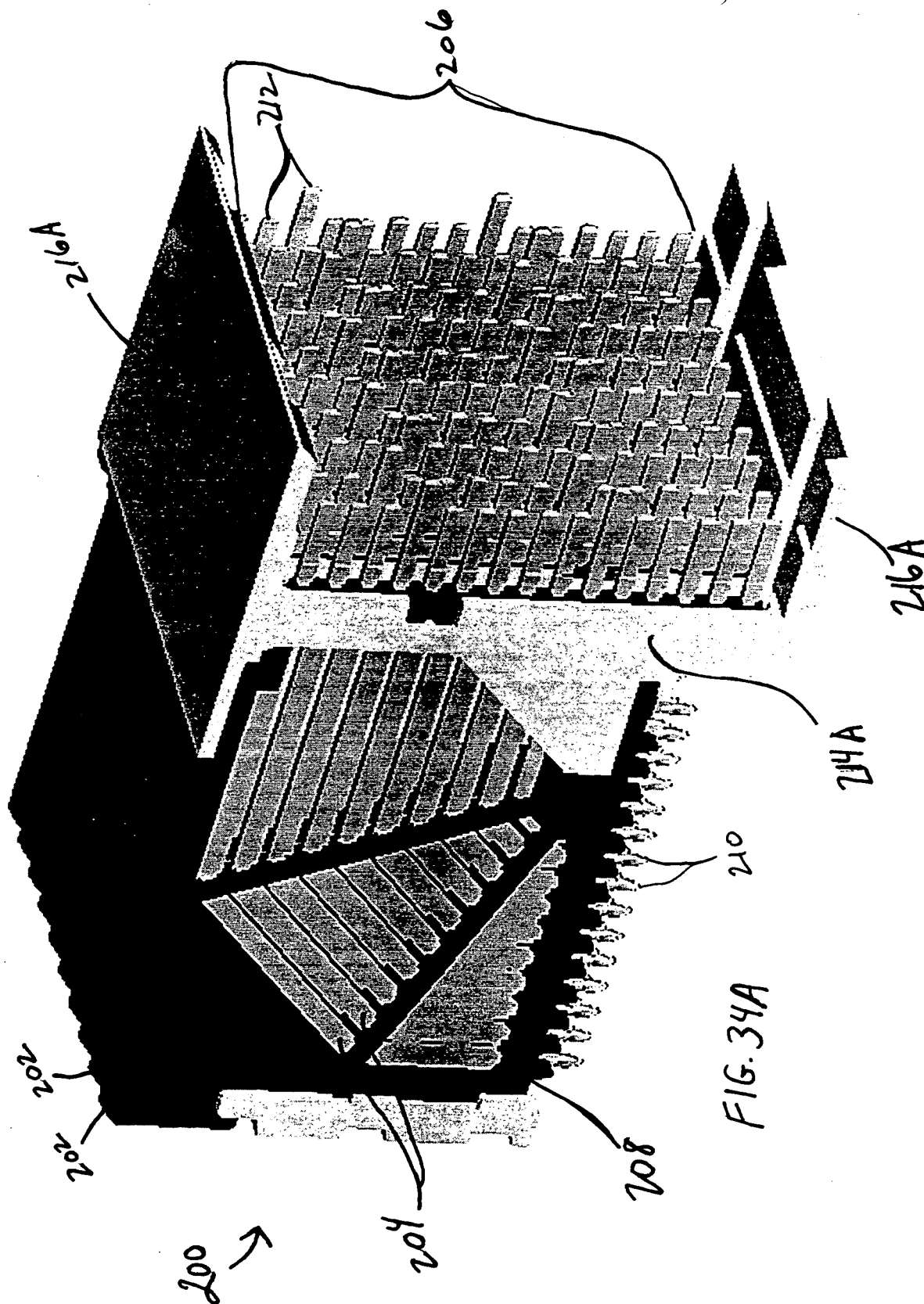
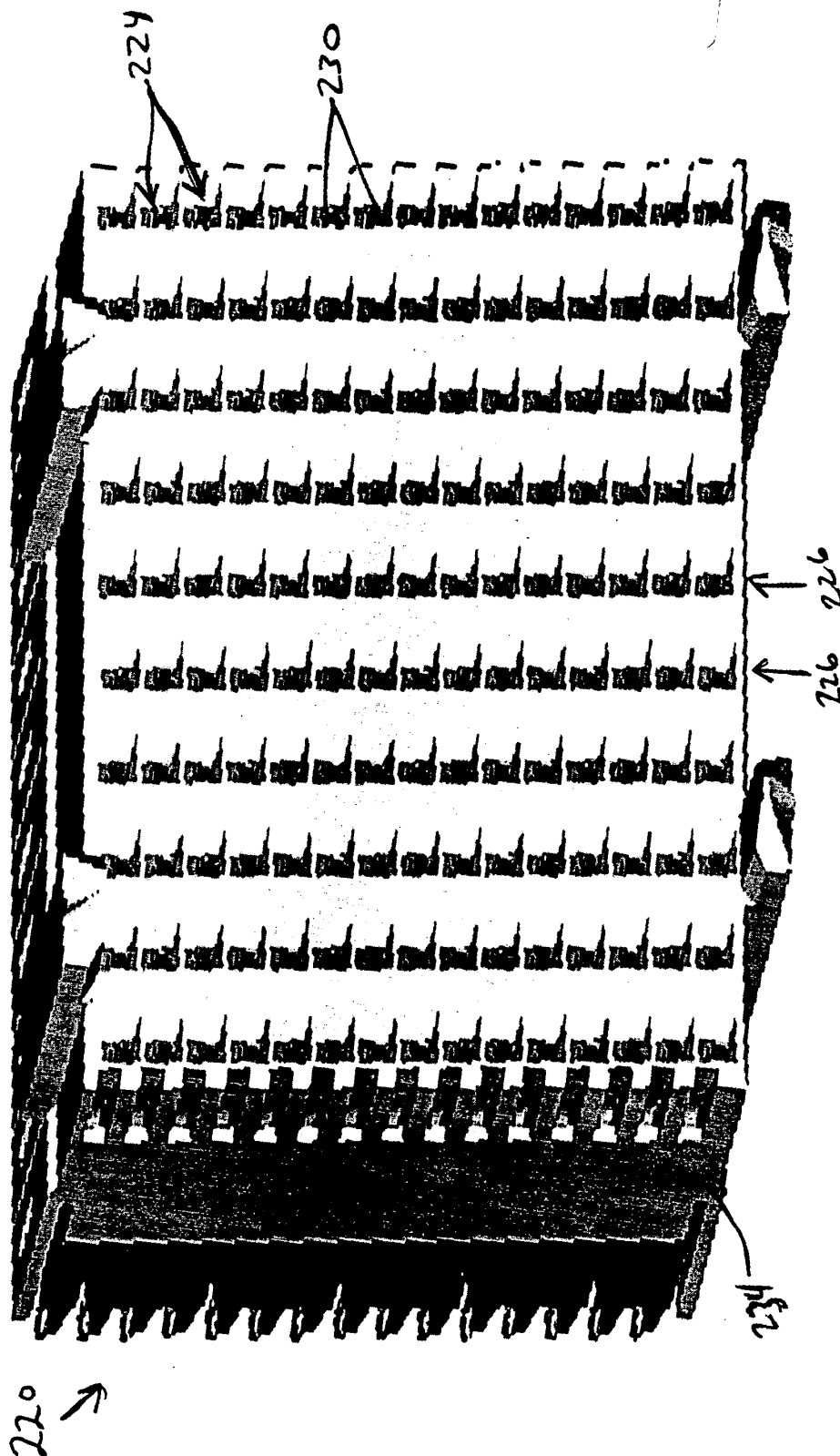


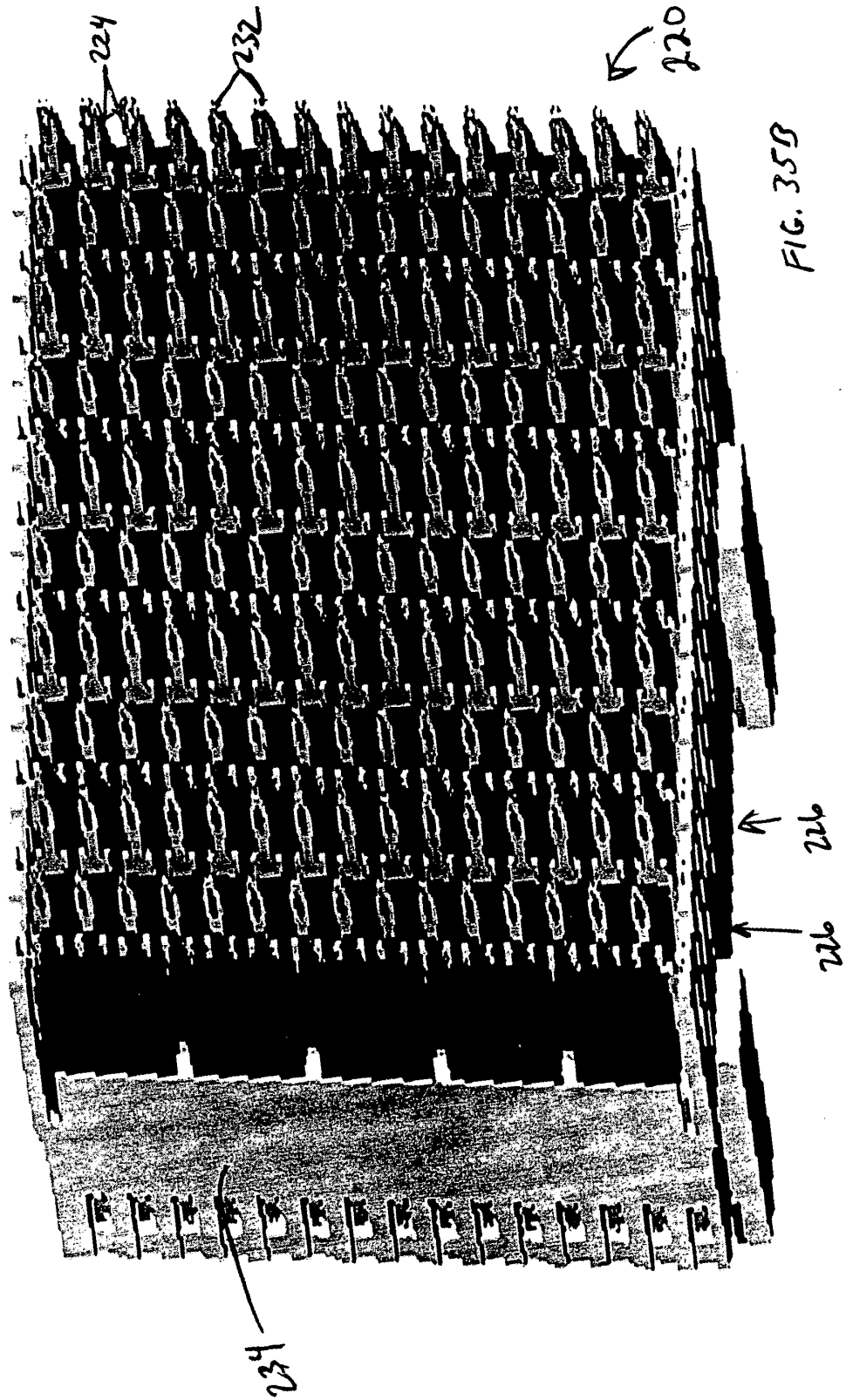
FIG. 33











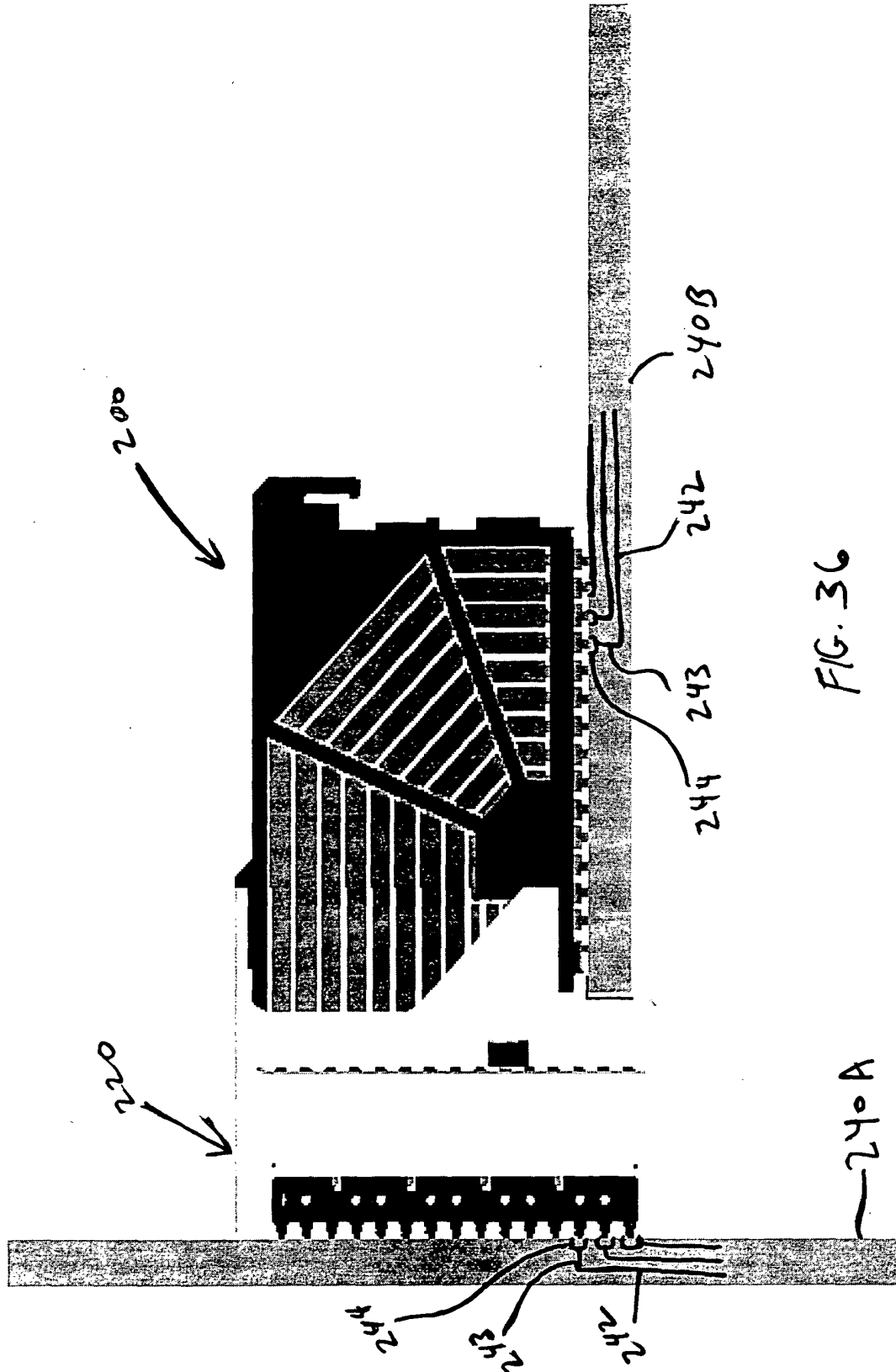
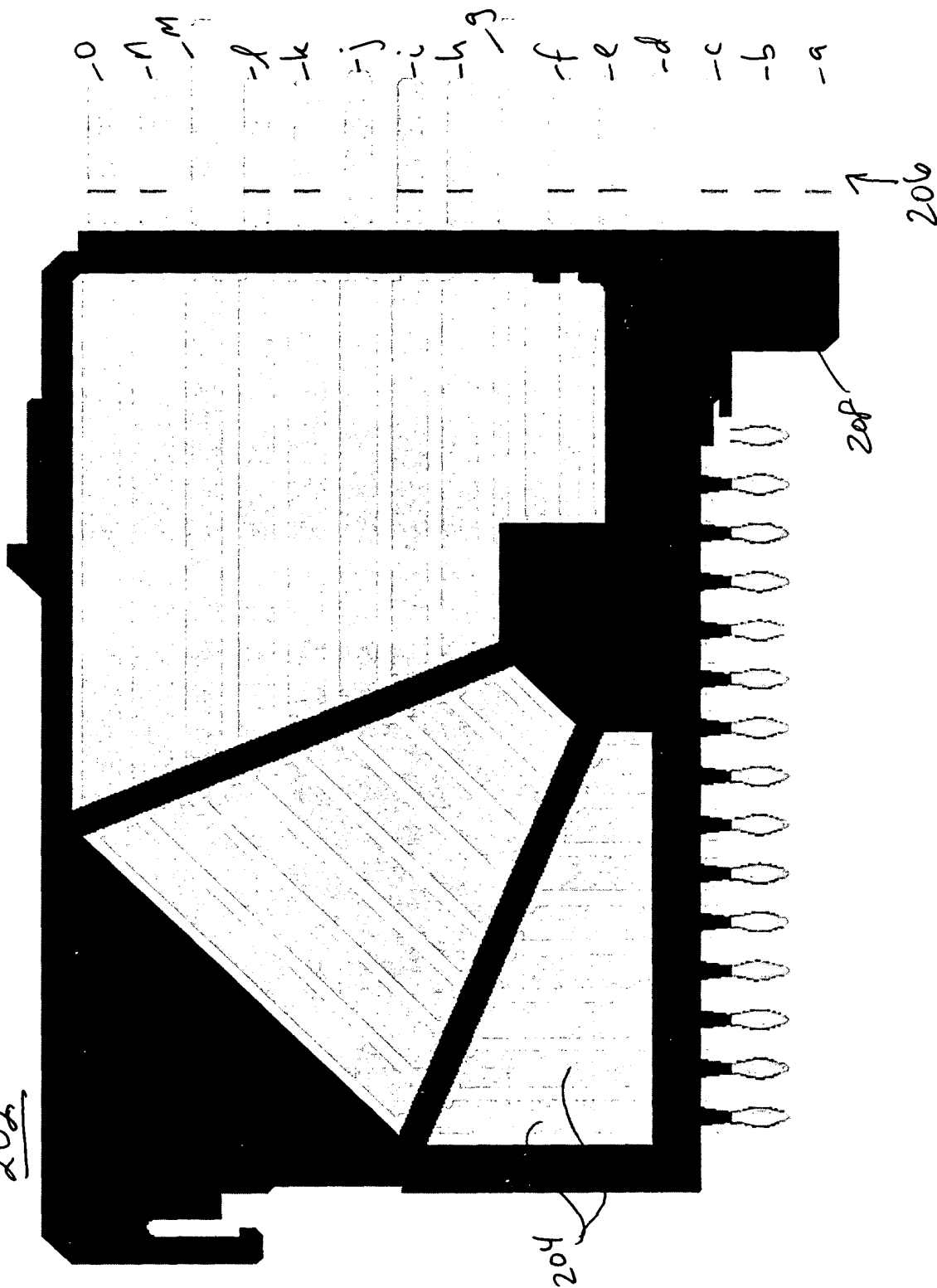


FIG. 37

202



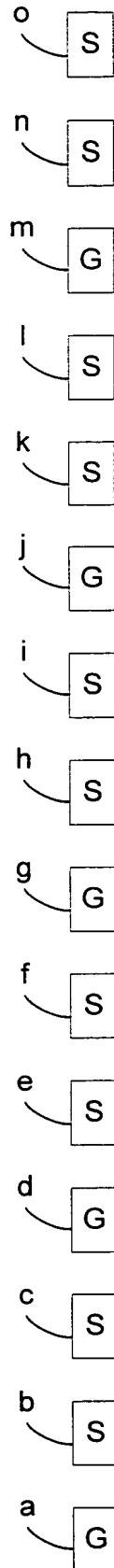


FIG. 38A

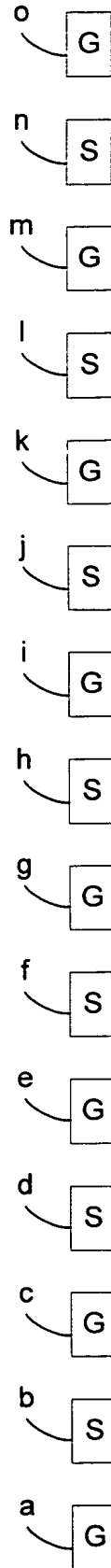


FIG. 38B

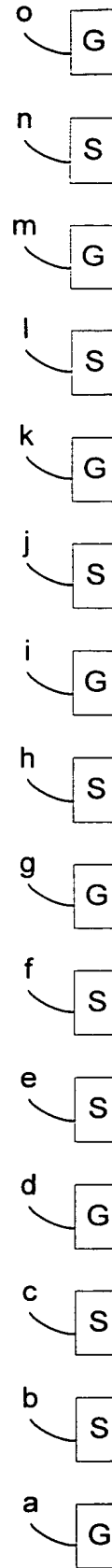
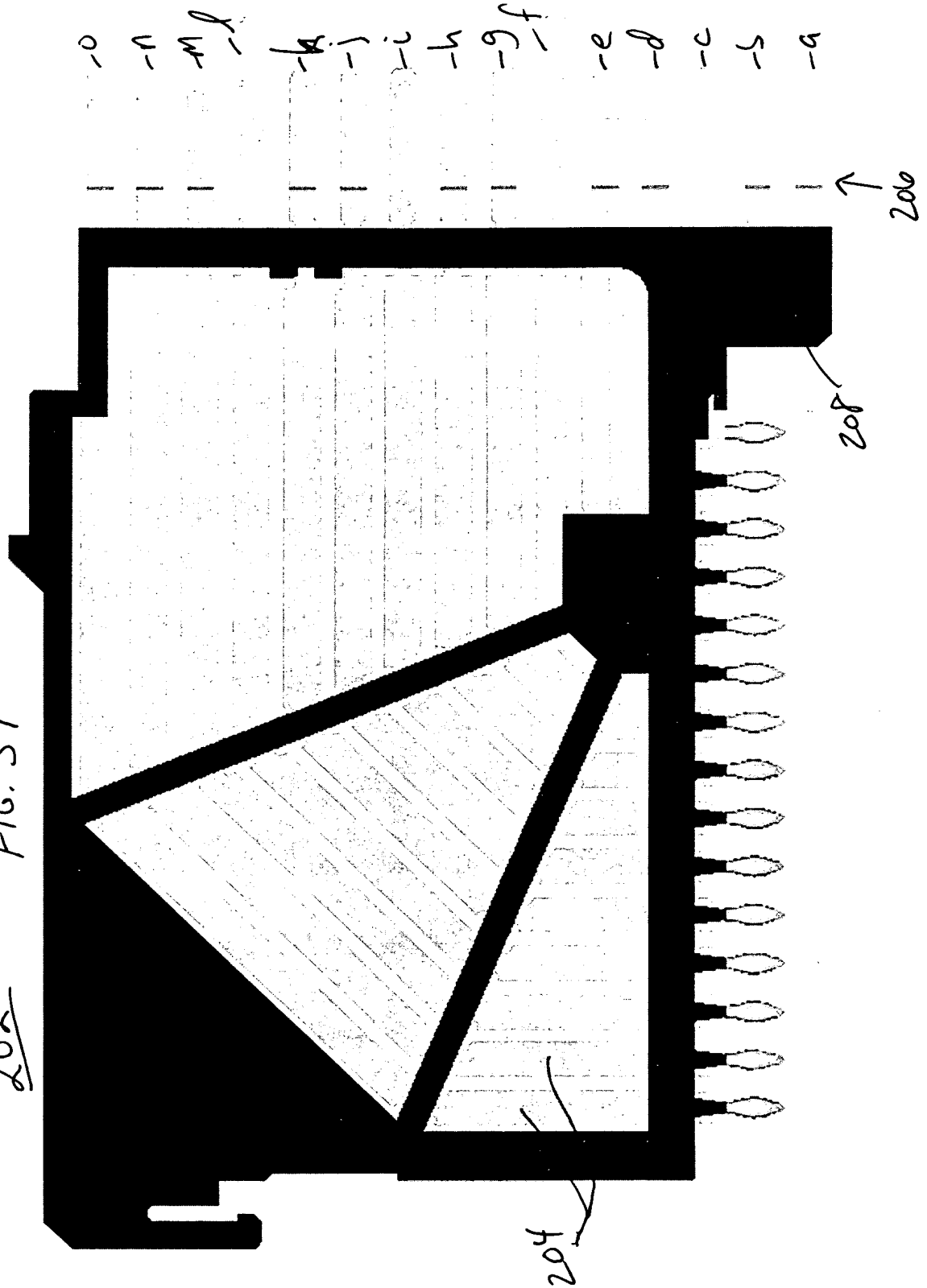
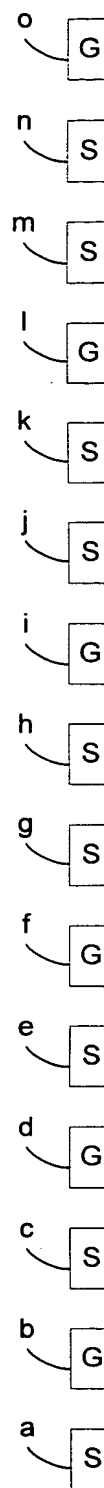
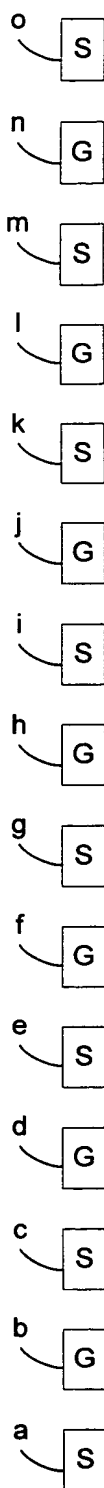
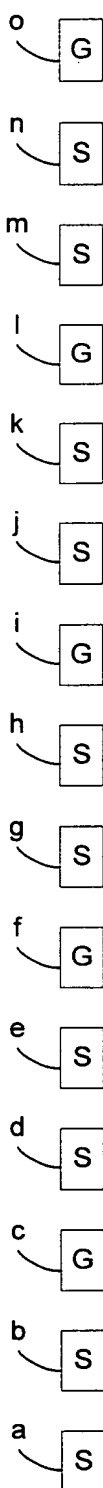


FIG. 38C

202 FIG. 39





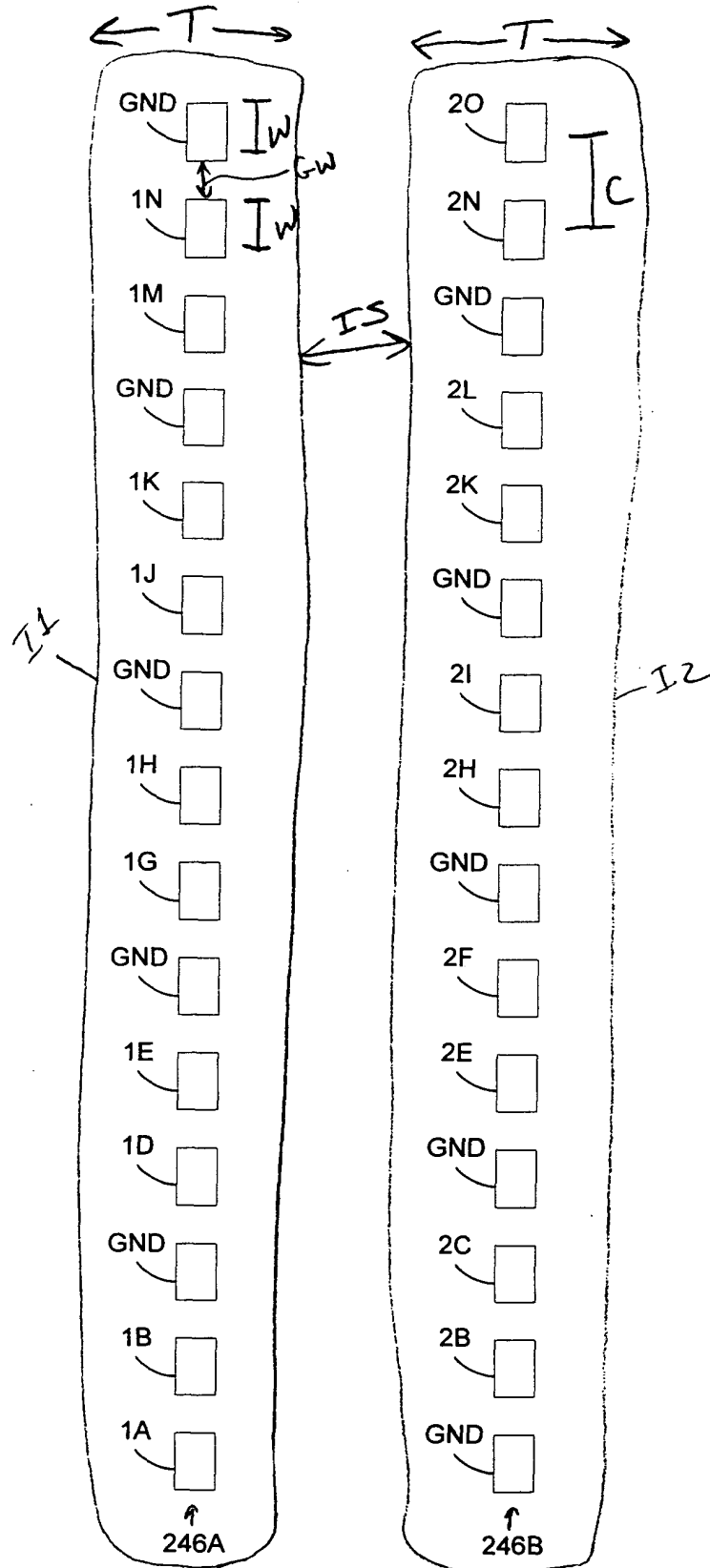
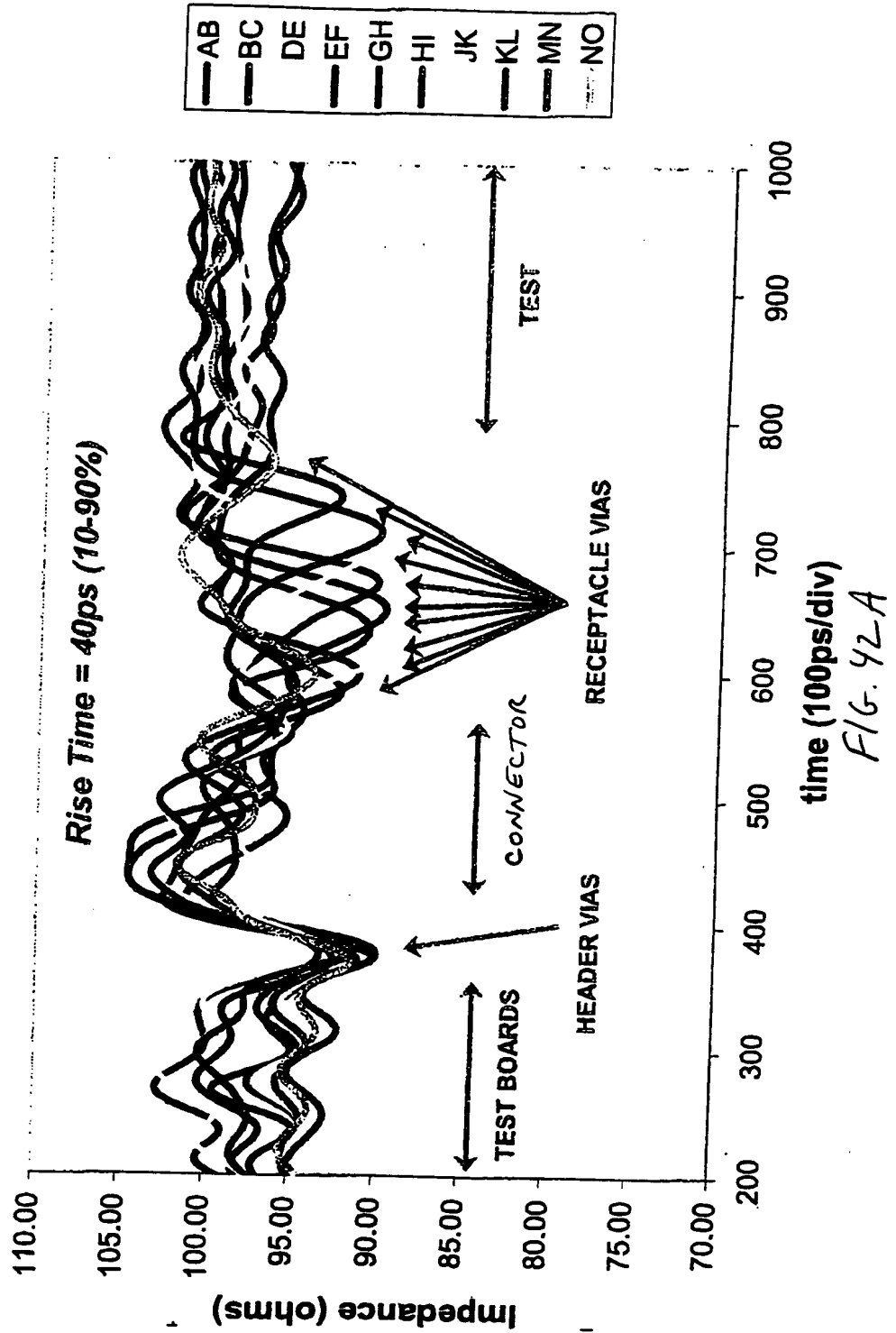


FIG. 41

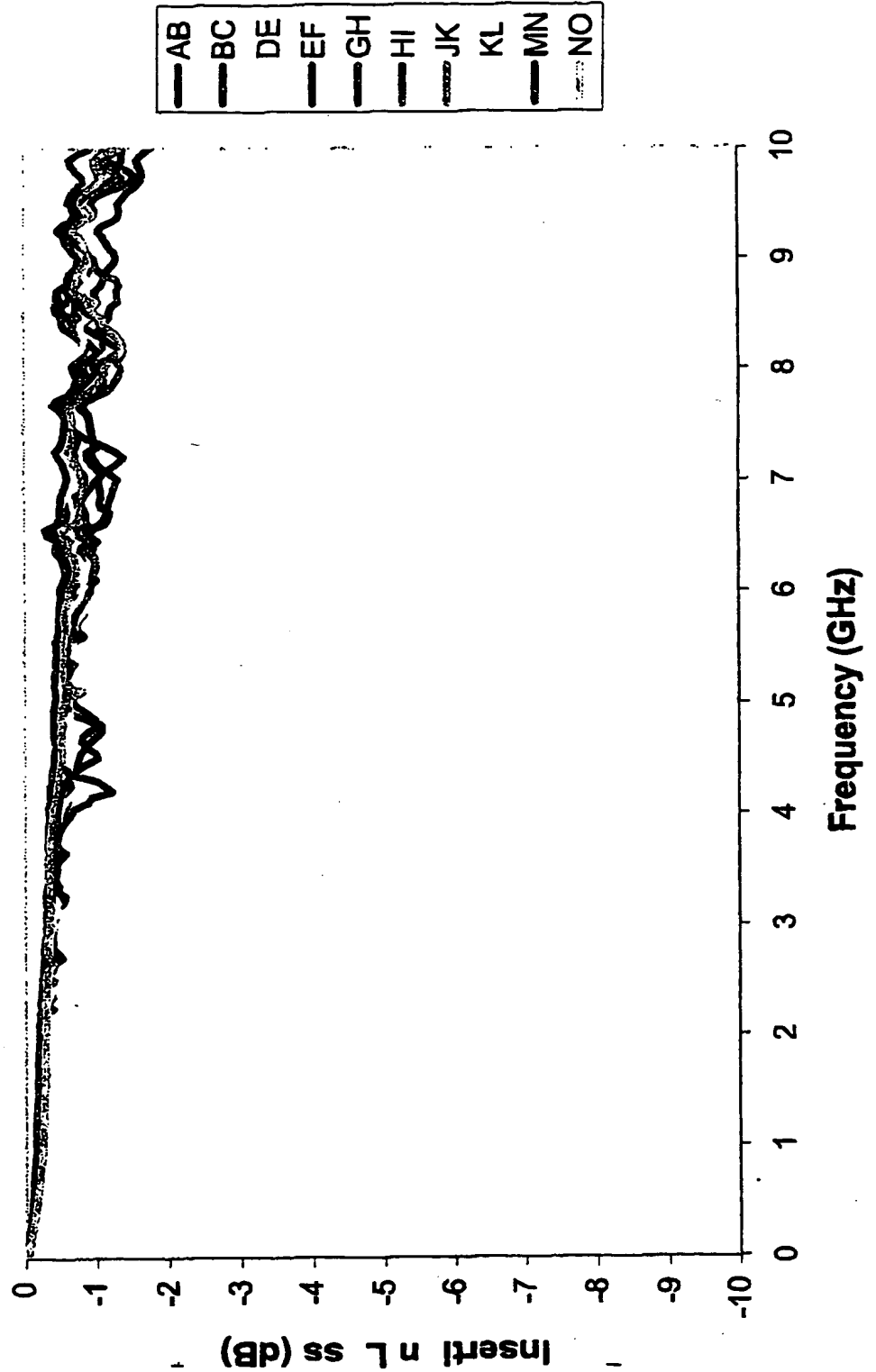


# IMPEDANCE



# INSERTION LOSS

FIG. 42B



# CROSSTALK

## Worst-Case Multi-Active Near-End Crosstalk

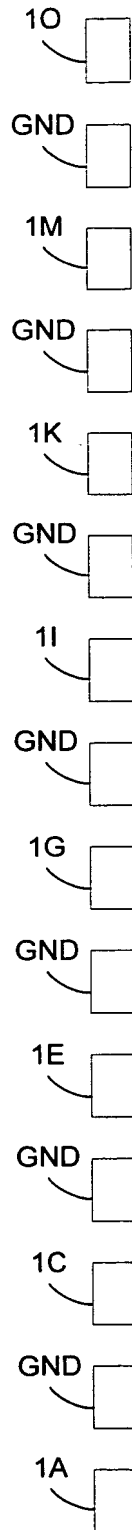
	AB	BC	DE	EF	GH	HI	JK	KL	MN	NO
40ps (10-90%)	1.9	2.4	2.4	2.3	2.5	2.2	2.4	2.1	2.6	1.7
100ps (10-90%)	1.4	1.8	1.7	1.8	1.9	1.7	2.0	1.7	1.8	1.0

FIG. 42C

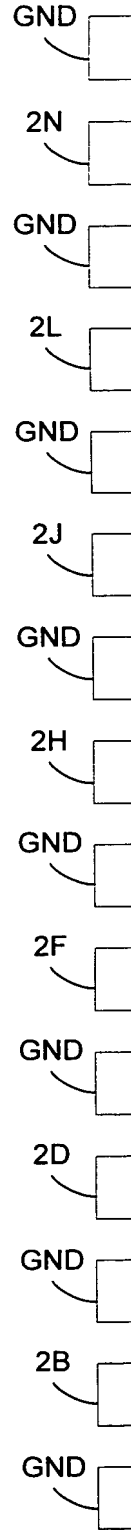
## Worst-Case Multi-Active Far-End Crosstalk

	AB	BC	DE	EF	GH	HI	JK	KL	MN	NO
40ps (10-90%)	2.7	1.8	5.0	3.4	4.2	3.2	4.1	2.9	2.4	1.1
100ps (10-90%)	1.3	0.8	2.2	1.5	1.9	1.4	1.8	1.3	1.1	0.5

FIG. 42D



246A



246B

FIG. 43

# IMPEDANCE

FIG. 44A

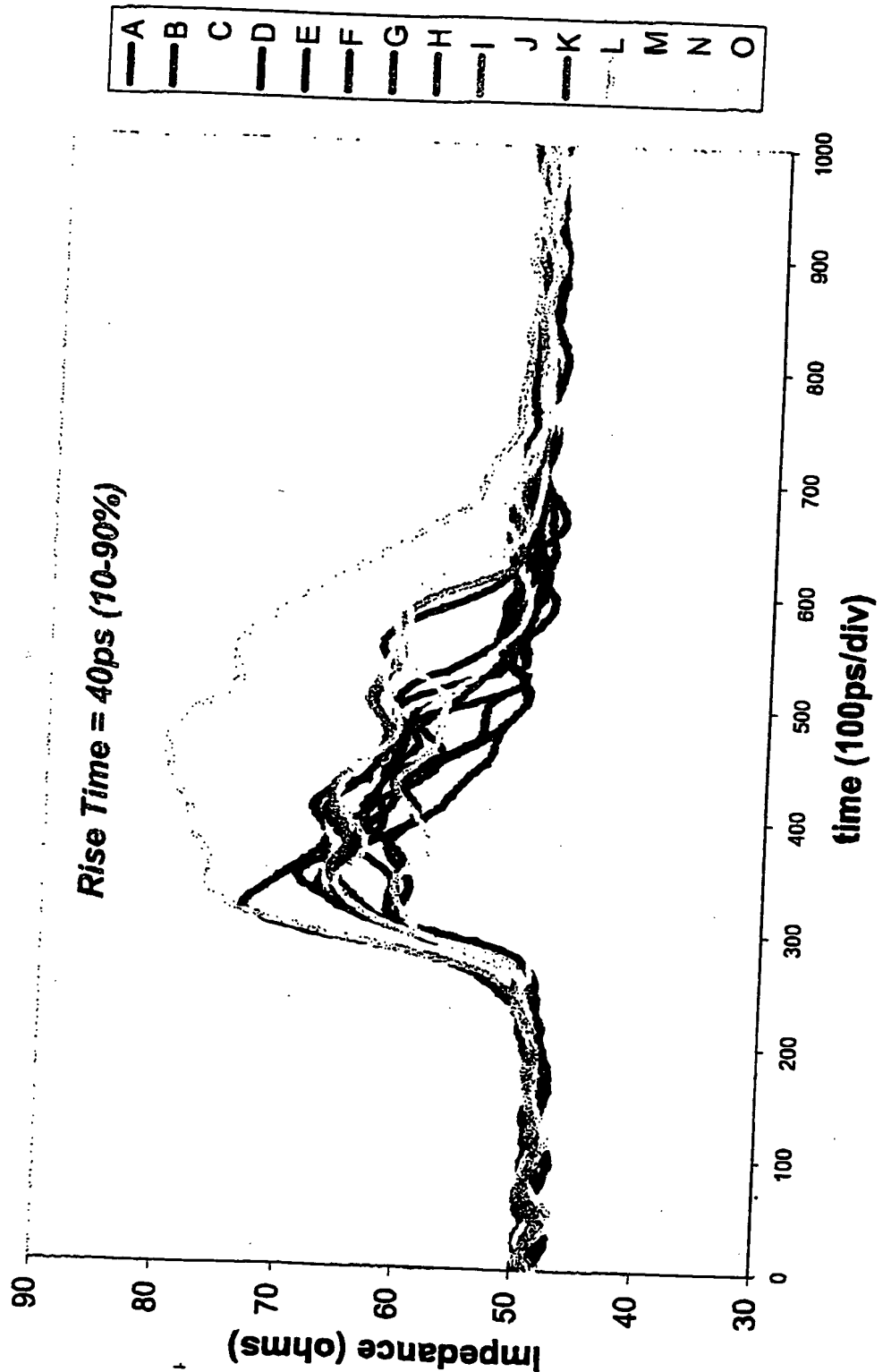
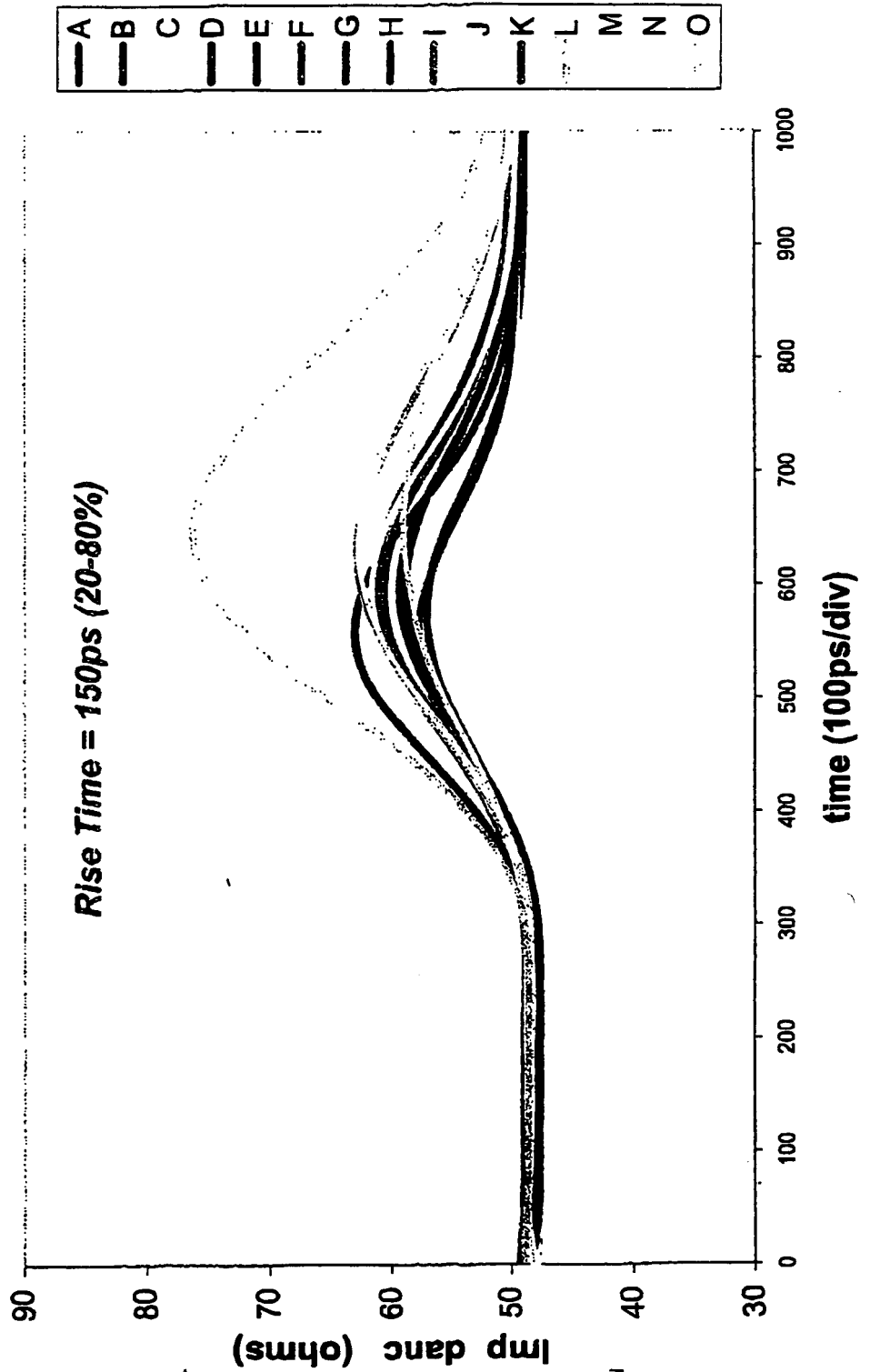
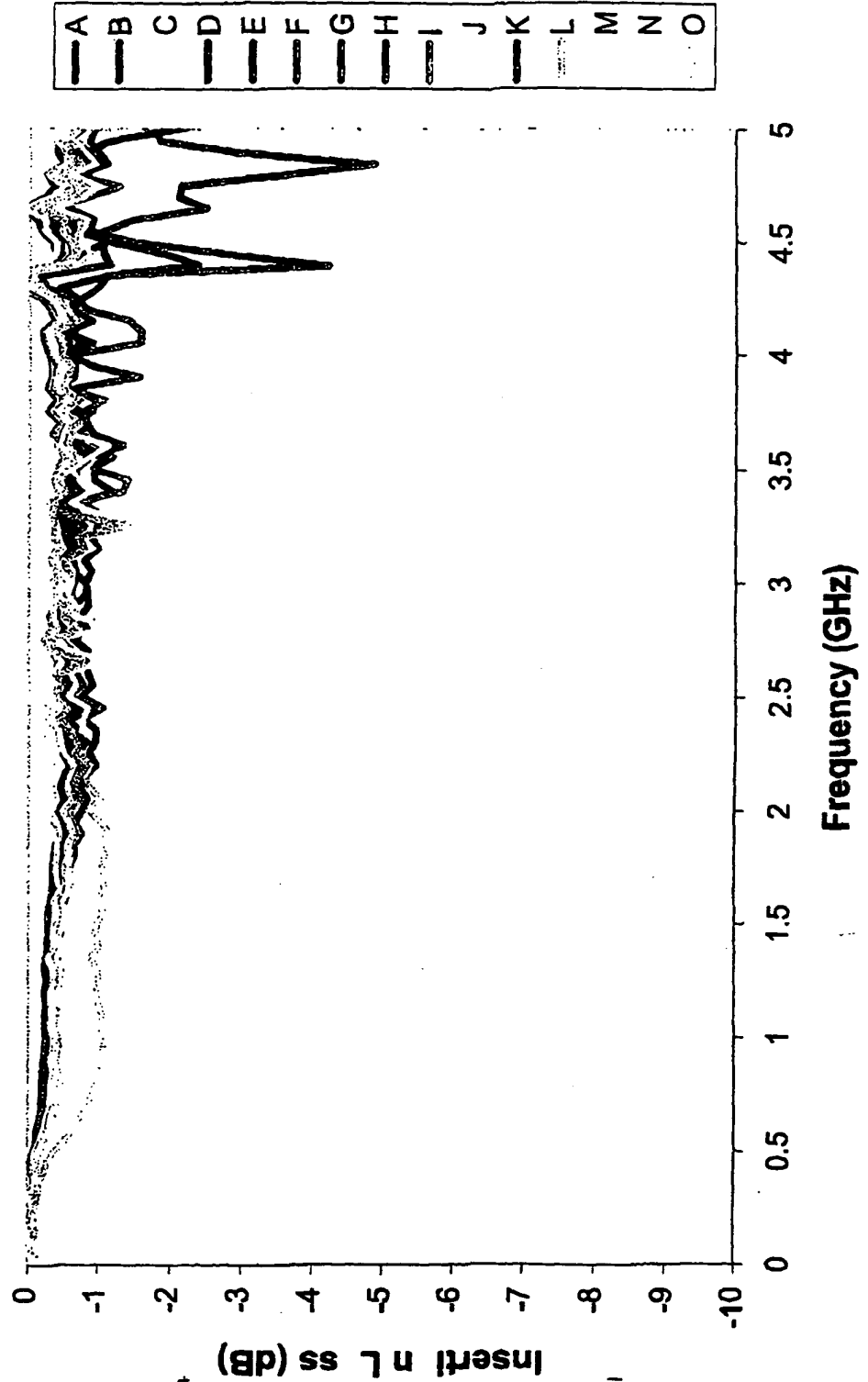


FIG. 44B IMPEDANCE



# INSERTION LOSS

FIG. 44C



# CROSSTALK

## Worst-Case Multi-Active Near-End Crosstalk

150ps (20-80%)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	5.0	7.3	7.3	7.4	6.0	6.2	7.2	7.6	8.0	8.7	6.6	7.6	8.0	7.8	4.2

FIG. 44D

## Worst-Case Multi-Active Far-End Crosstalk

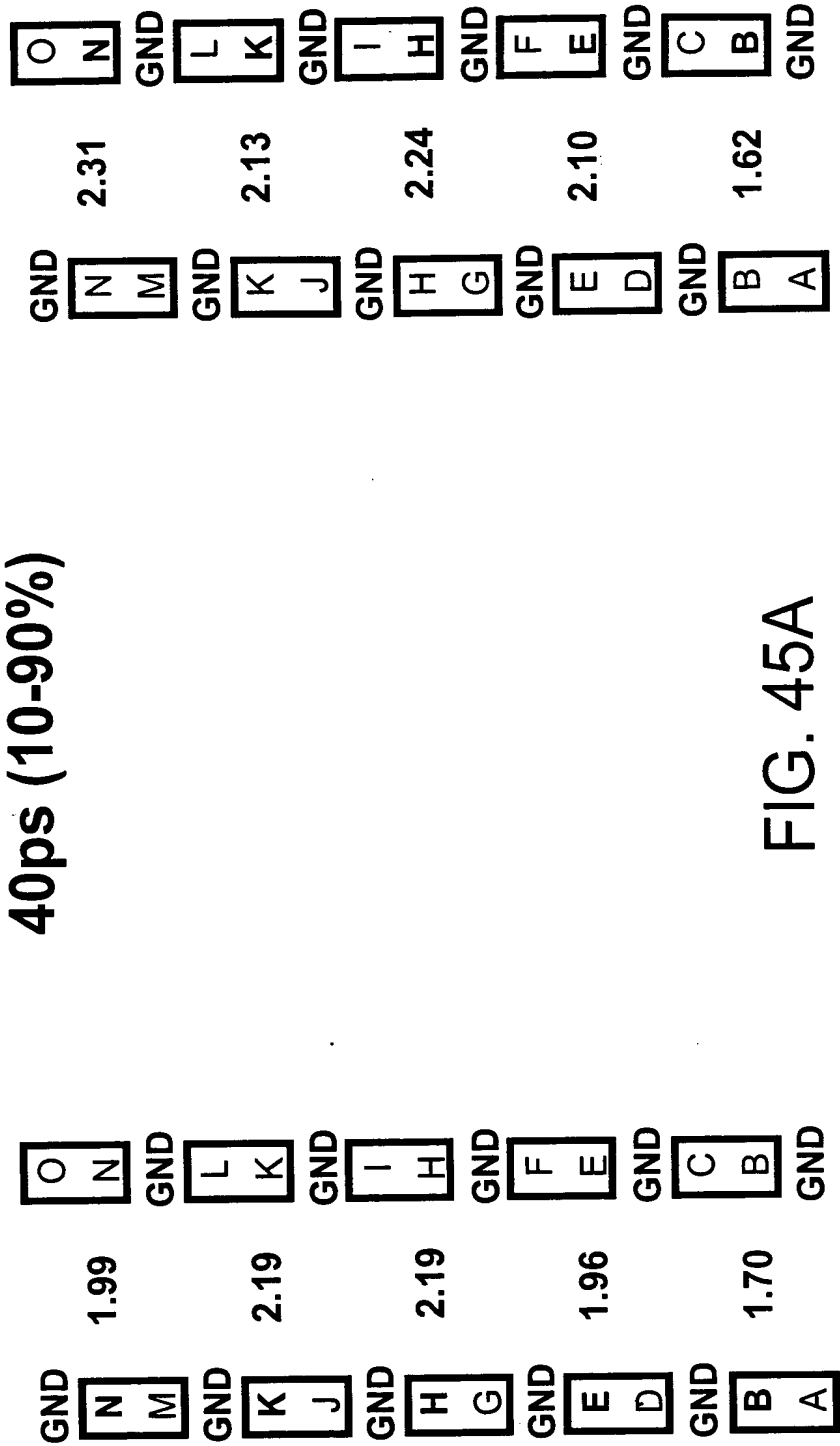
150ps (20-80%)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	2.0	2.9	2.4	2.4	2.6	2.4	2.9	2.9	2.5	2.8	2.6	2.7	2.8	2.8	1.7

FIG. 44E



Single-Ended IMLA to Differential IMLA

Near-End Crosstalk Approximation



# Single-Ended IMLA to Differential IMLA

## Far-End Crosstalk Approximation

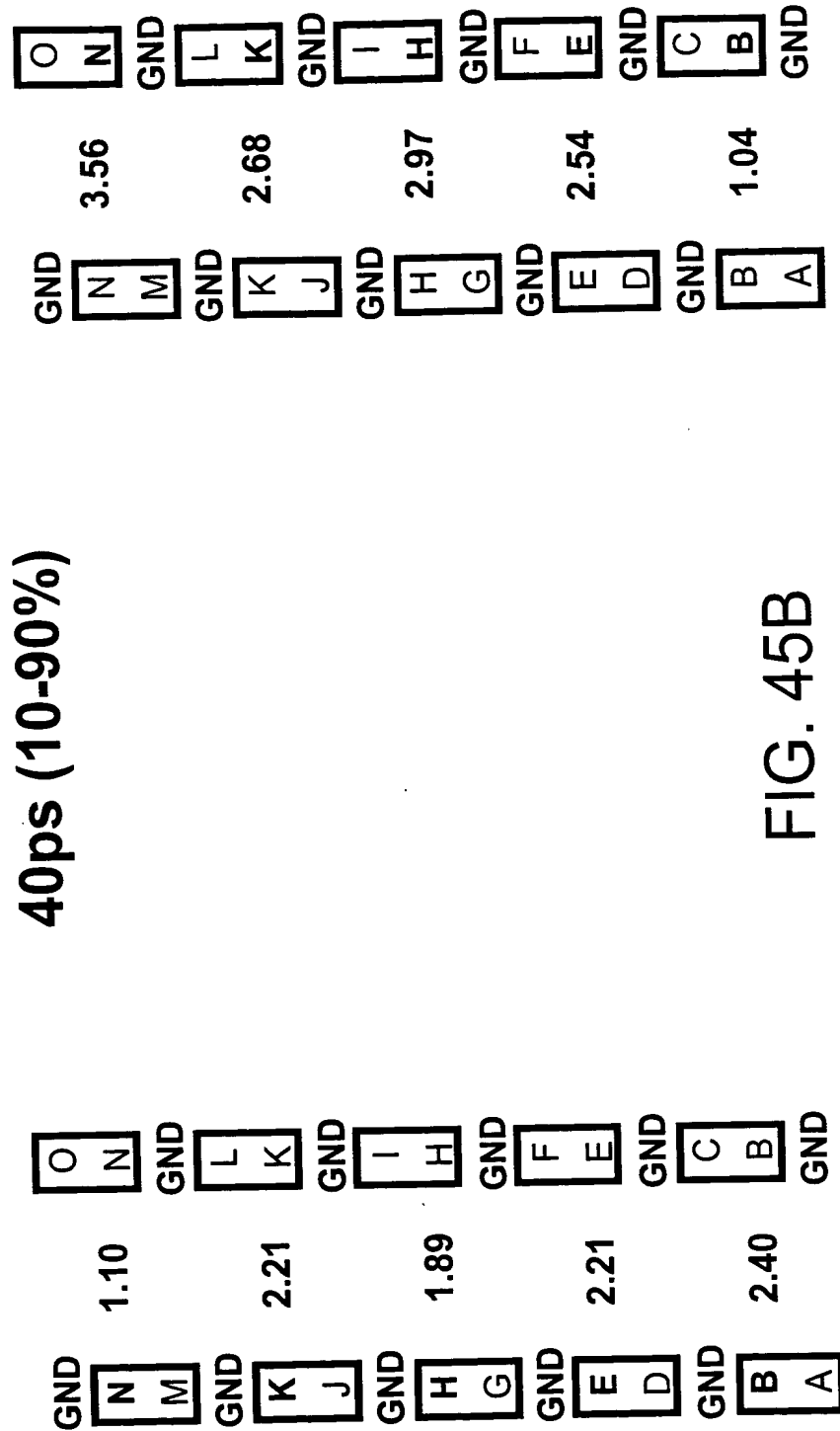


FIG. 45B

# Single-Ended IMLA to Differential IMLA

## Near-End Crosstalk Approximation

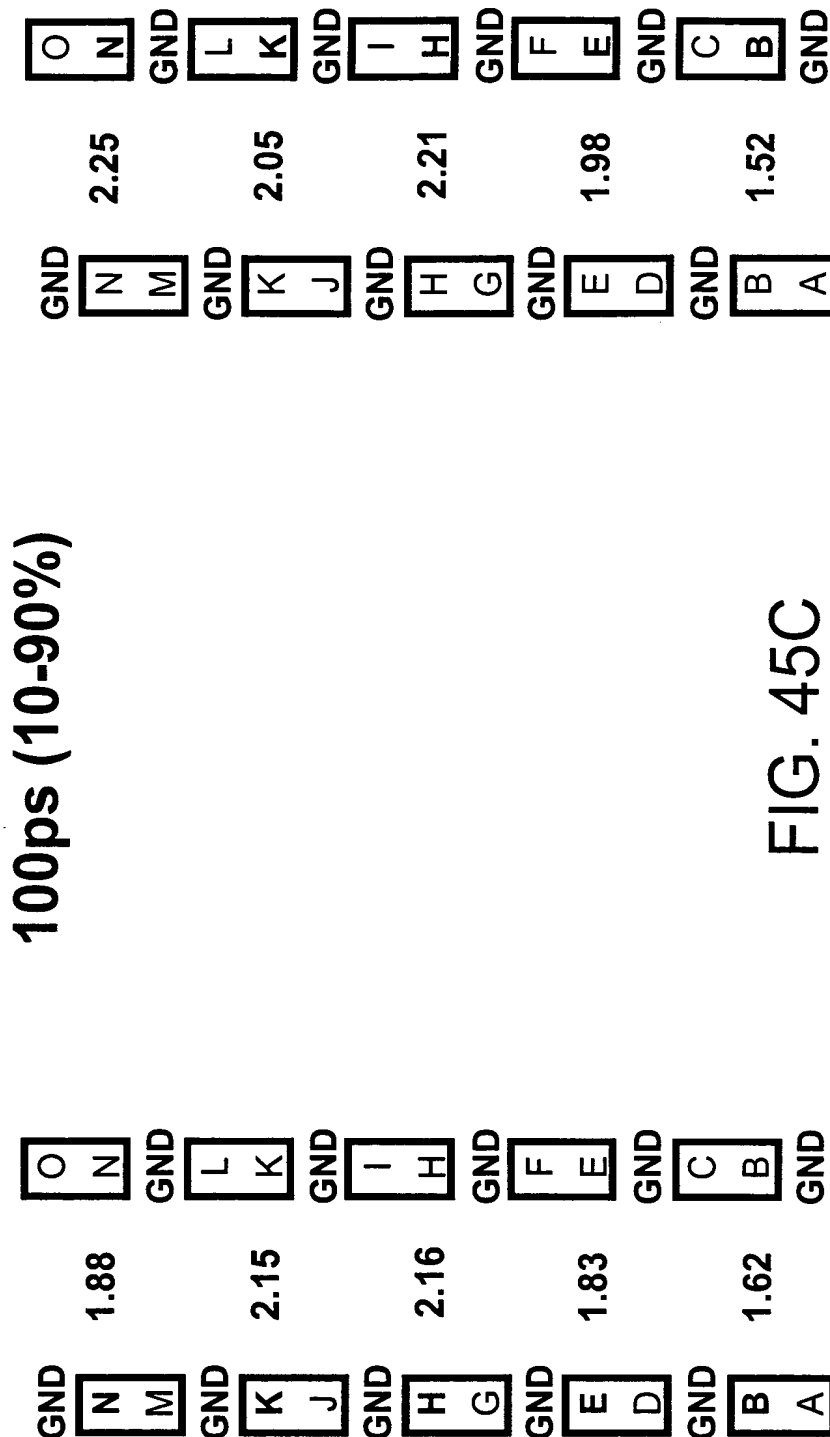


FIG. 45C

# Single-Ended IMLA to Differential IMLA

## Far-End Crosstalk Approximation

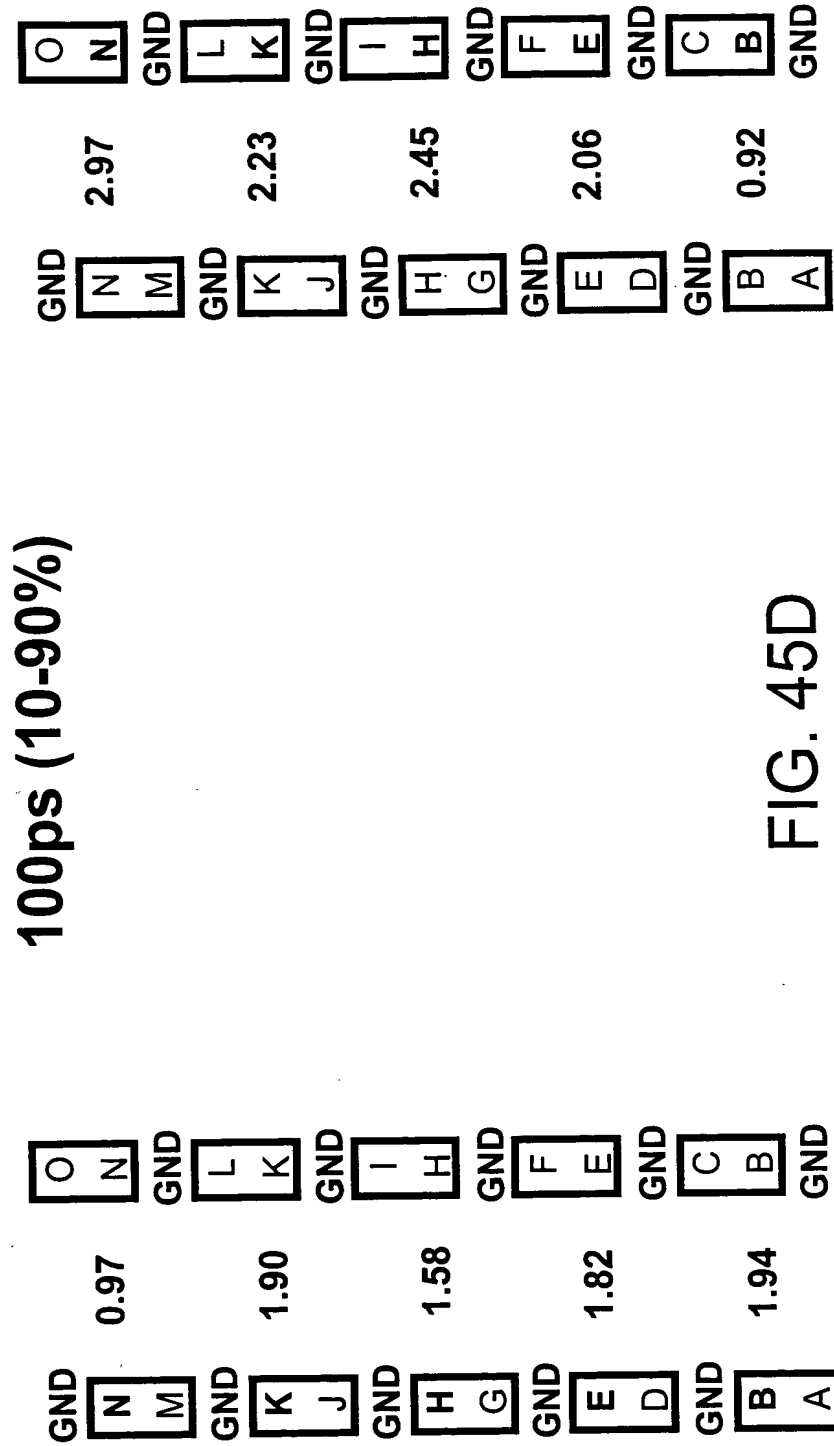


FIG. 45D

# Single-Ended IMLA to Differential IMLA

## Near-End Crosstalk Approximation

150ps (20-80%)

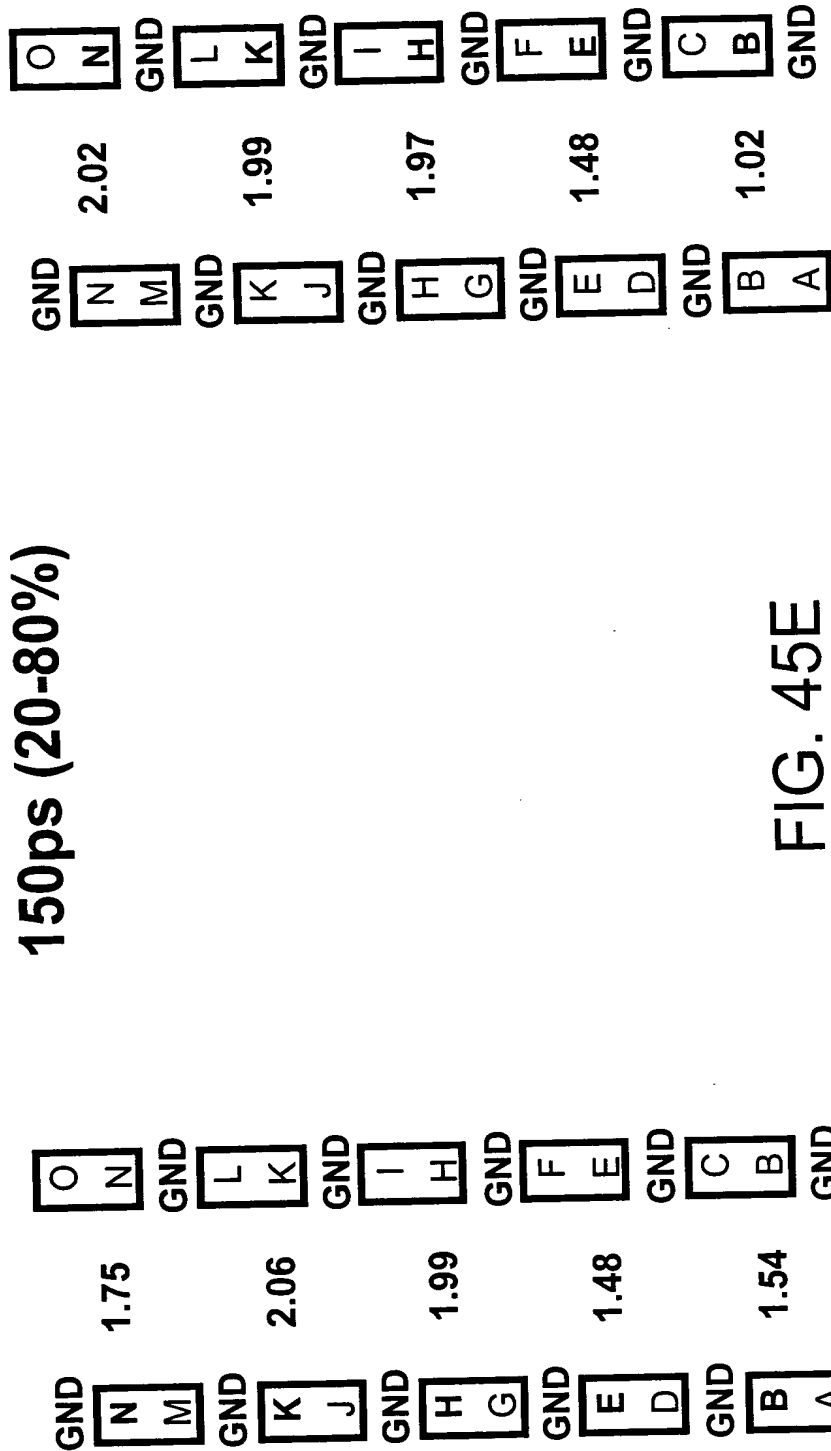


FIG. 45E

# Single-Ended IMLA to Differential IMLA

## Far-End Crosstalk Approximation

150ps (20-80%)

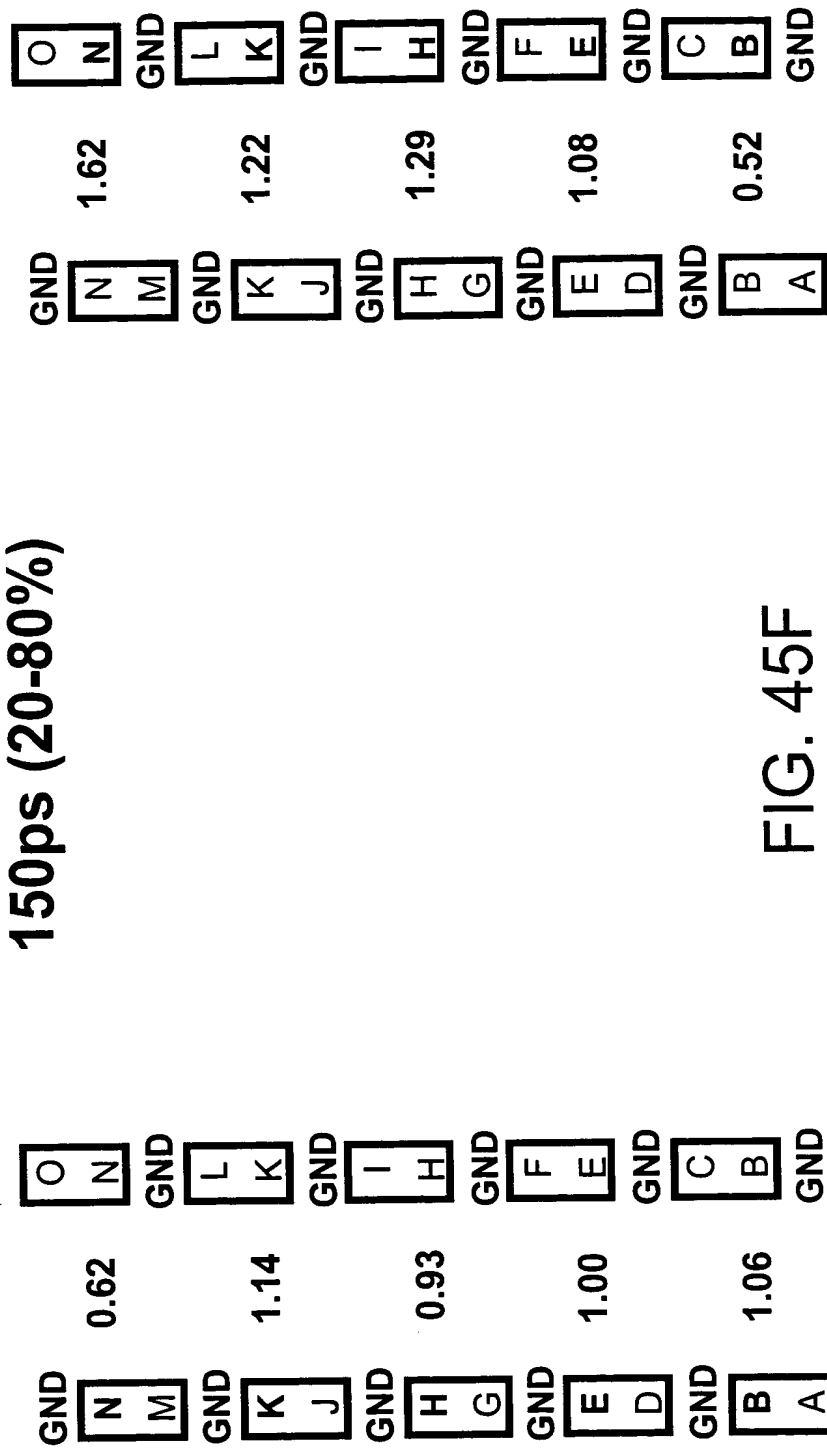


FIG. 45F

# Differential IMLA to Single-Ended IMLA

## Near-End Crosstalk Approximation

40ps (10-90%)

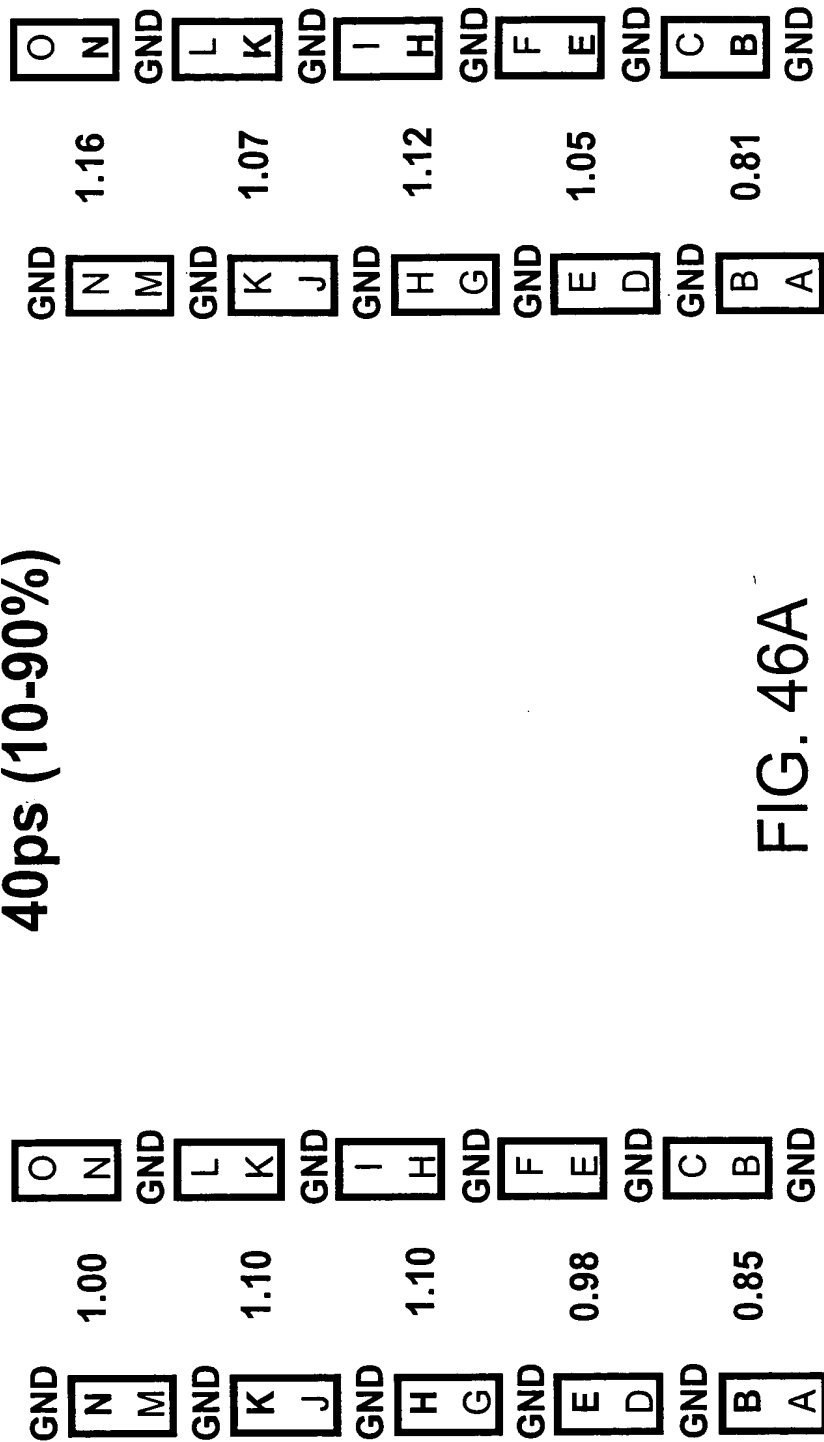


FIG. 46A

# Differential IMLA to Single-Ended IMLA

## Far-End Crosstalk Approximation

40ps (10-90%)

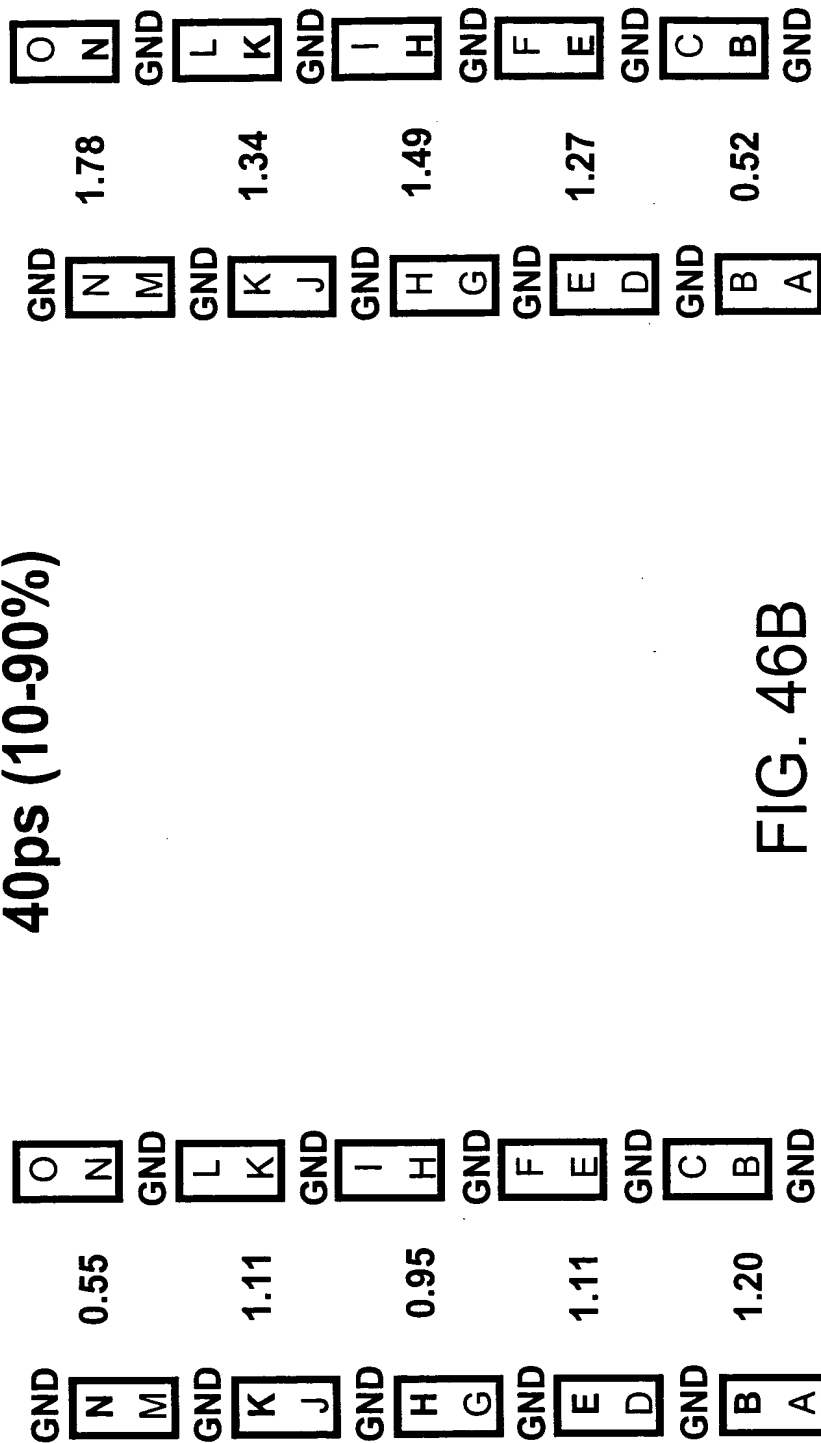
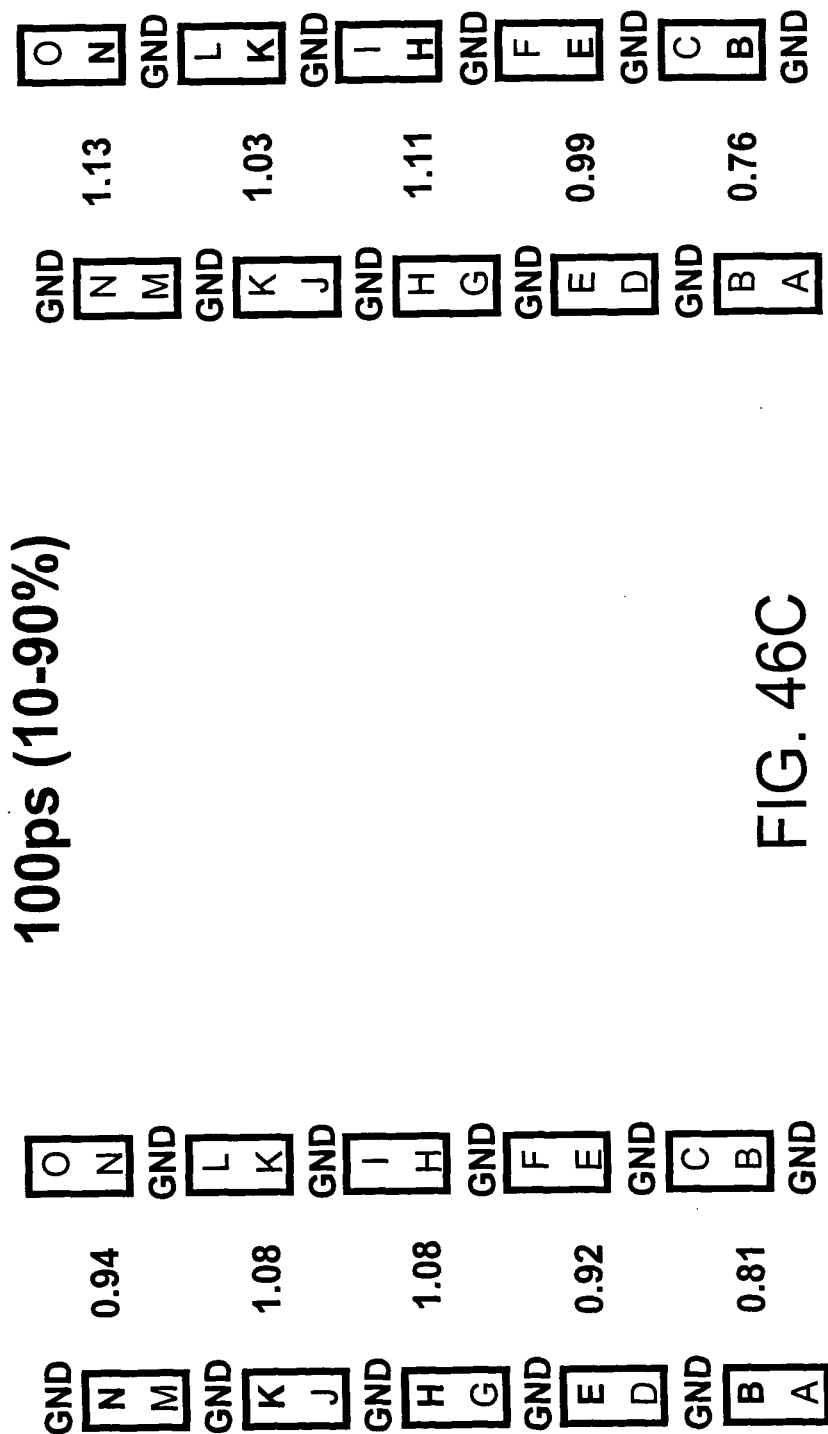


FIG. 46B



# Differential IMLA to Single-Ended IMLA

## Near-End Crosstalk Approximation



# Far-End Crosstalk Approximation

# 100ps (10-90%)

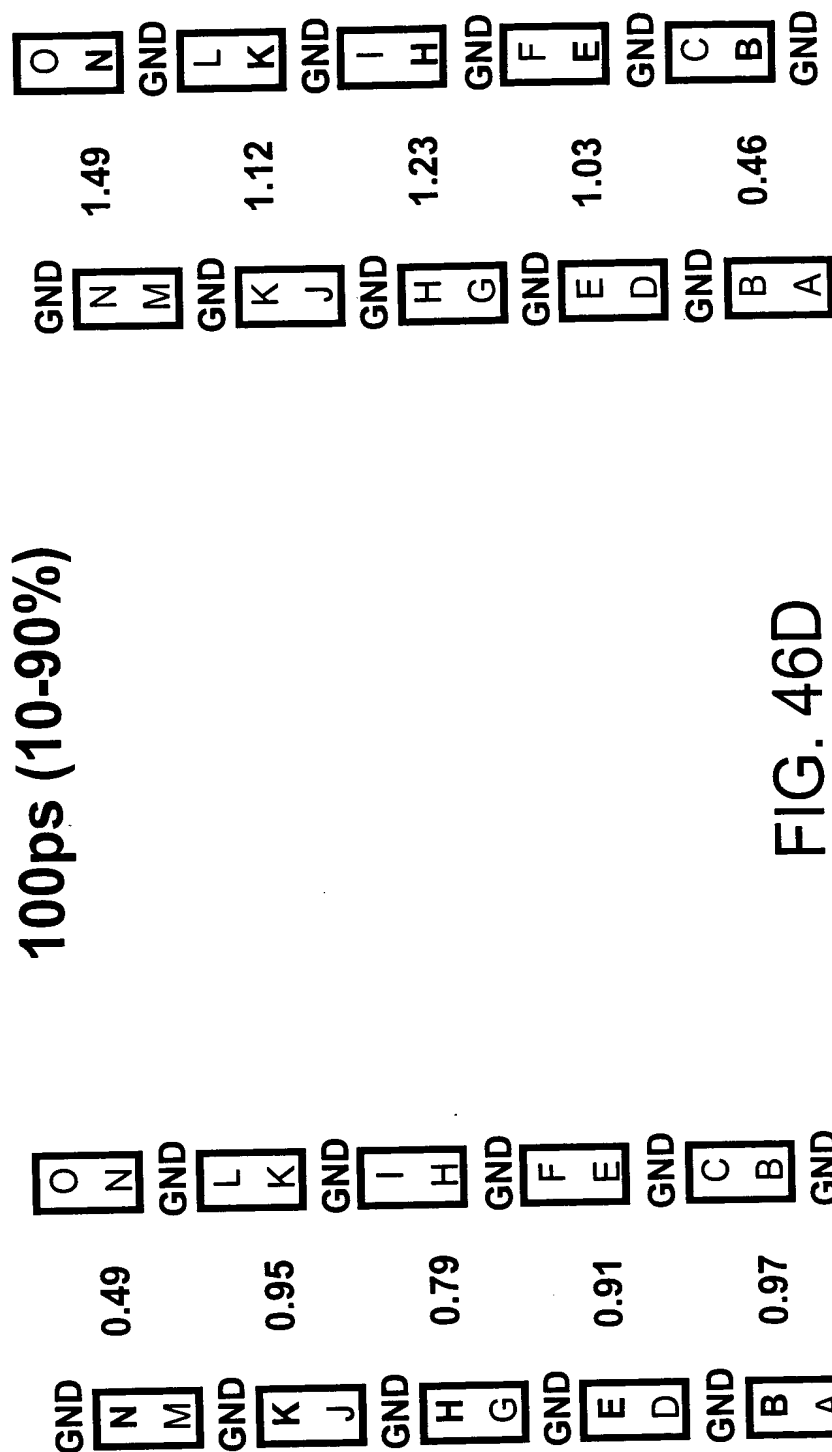


FIG. 46D

# Differential IMLA to Single-Ended IMLA

## Near-End Crosstalk Approximation

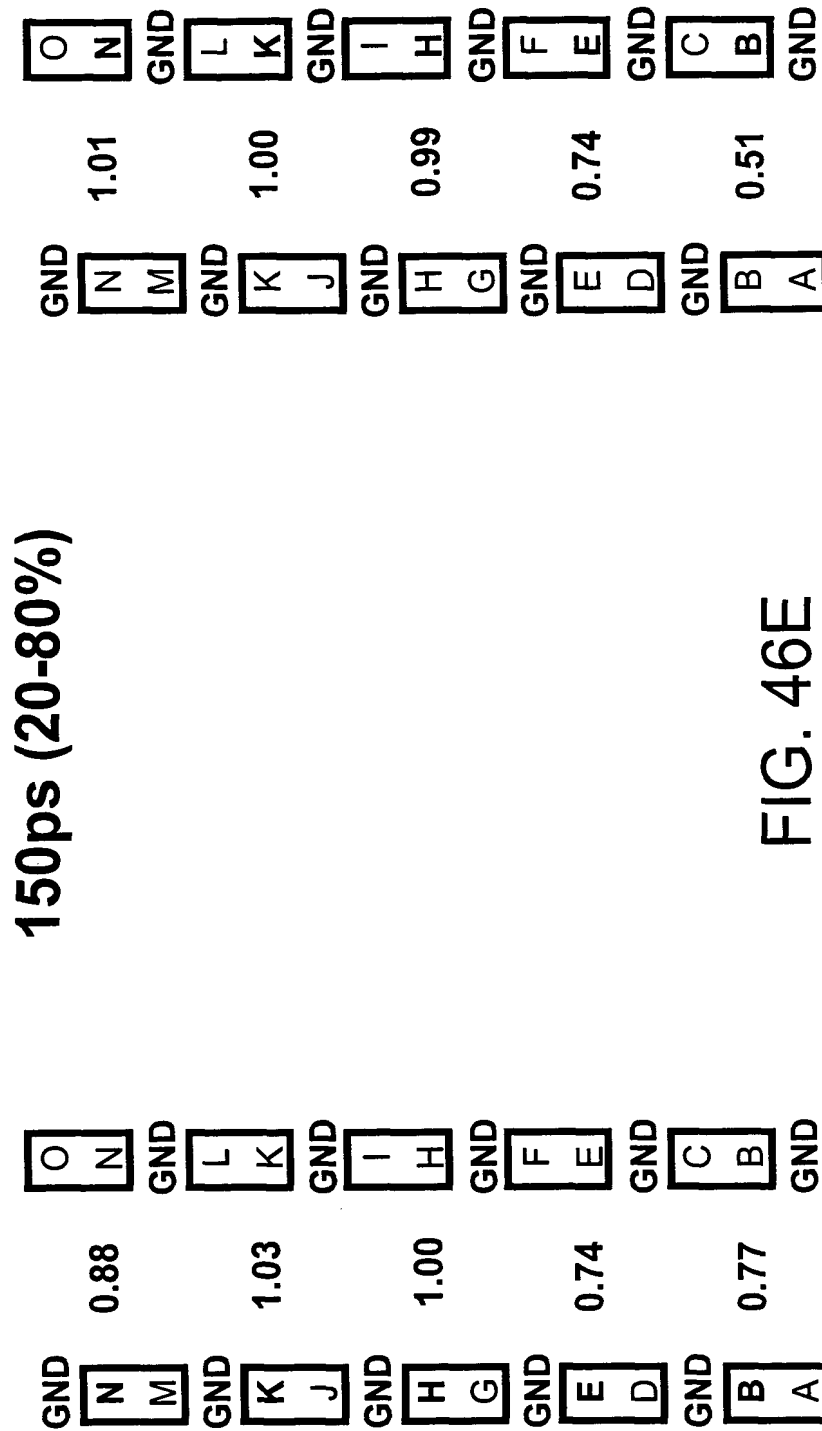


FIG. 46E

# Differential IMLA to Single-Ended IMLA

## Far-End Crosstalk Approximation

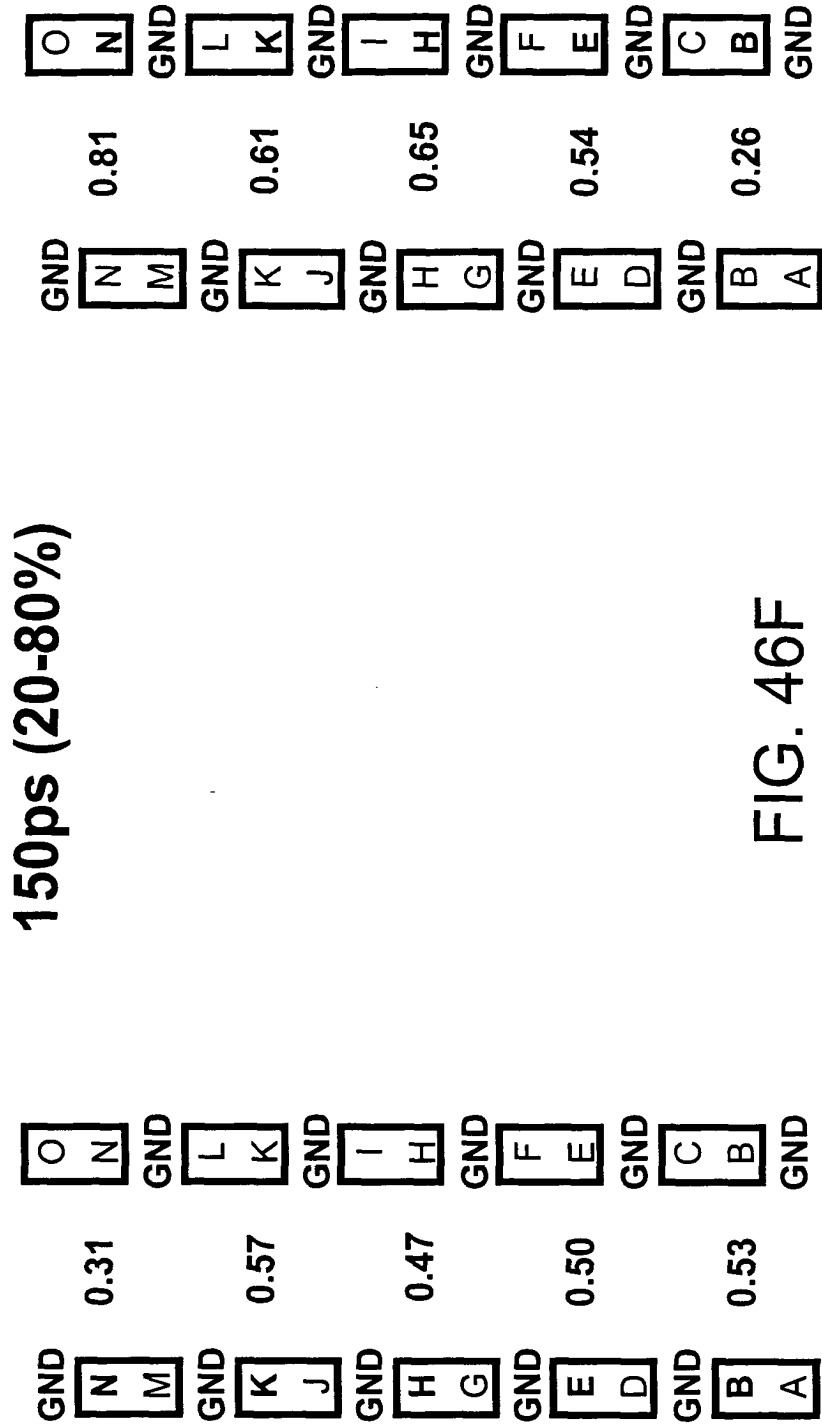


FIG. 46F